DOCUMENT RESUME

ED 242 258 HE 017 123

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TITLE	Supply and Characteristics of Selected Health Personnel.
INSTITUTION	Health Resources Administration (DHHS/PHS), Hyattsville, MD. Div. of Health Professions Analysis.
REPORT NO	HRA-81-20
PUB DATE	Jun 81
NOTE	79p.; For related documents, see HE 017 124 and HE 017 126-133.
PUB TYPE	Statistical Data (110) -- Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	Dentists; *Employment Projections; Employment Statistics; *Geographic Distribution; *Health Personnel; Health Services; Higher Education; *Labor Supply; Nurses; Occupational Surveys; Optometrists; Pharmacists; Physicians; Professional Personnel; Veterinarians

ABSTRACT

Detailed statistics on trends in the U.S. supply and geographic distribution of personnel in eight health occupations, along with current data on selected professional characteristics, are presented. Statistical tables include combined data for the eight occupations, and groups of tables for the individual health occupations: physicians (both M.D.'s and Doctor of Osteopathy), dentists, optometrists, pharmacists, podiatrists, veterinarians, and registered nurses. The multiple occupation tables provide national trend and current figures for personnel supply and ratio to population, and certain data on percent distribution by state. In addition, related ratio and percent distribution data are presented by metropolitan areas and non-metropolitan counties. The age distribution of personnel in the eight occupations is also covered. Data are included on national trends in active personnel supply during 1950-1980, together with personnel-to-population ratios. Also provided for all eight occupations is the geographic distribution of active personnel, and their ratio to population, by region, division, and state, as of 1970, 1975, and 1980. Additional considerations include foreign medical graduates, practice characteristics by specialty, active nonfederal M.D.'s, and health occupation shortage areas. (SW)

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Supply and Characteristics of Selected Health Personnel

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HEALTH AND HUMAN SERVICES
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NE 017 123

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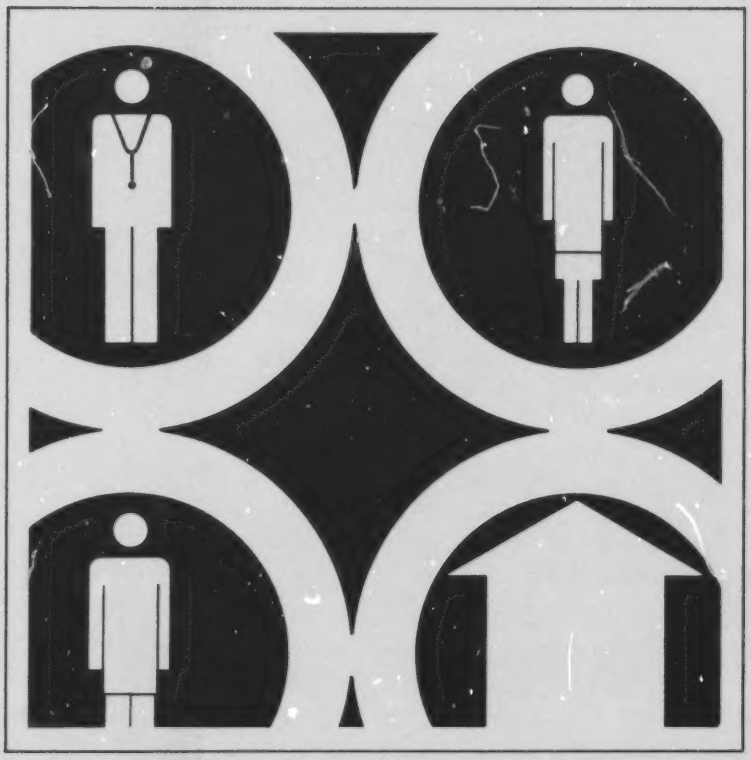

June 1981

U. S. DEPARTMENT OF
HEALTH AND HUMAN SERVICES
Public Health Service
Health Resources Administration
Bureau of Health Professions
Division of Health Professions Analysis

DHHS Publication No. (HRA) 81-20

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Foreword

This report provides detailed statistics on trends in the national supply and geographic distribution of personnel in eight health occupations, together with current data on selected professional characteristics. It was prepared by the Division of Health Professions Analysis, Bureau of Health Professions, Health Resources Administration, primarily as a reference document, with the tables designed to be self-standing and self-explanatory. Every attempt has been made to present the data in clear and logical table designs, including accurate and informative titles and column headings, to facilitate use of the tables by readers. Only minimal descriptive or explanatory text is included.

It is important for the reader to note that many of the statistics in the report are estimates made by the staff of the Division of Health Professions Analysis (DHPA). In many cases it was neccessary to adjust available published data to make them comparable and internally consistent, and to bring them more up to date. In nearly all cases, 1979 and 1980 data were estimated by DHPA staff in early 1981, based on a variety of approaches and methods. Since this is an ongoing activity, these estimates are undergoing revision and refinement as new information becomes available and further analyses are conducted. Subsequent DHPA publications will embody such changes. A more complete discussion of the nature and content of this report appears in the Introduction.

It is believed that this report will provide a ready working reference for analysts, policymakers, health planners, administrators, investigators, and others concerned with the supply of health personnel. It is hoped, too, that the present effort will stimulate data gathering and further study by others.

This report was prepared by James N. Ake, statistician, and Donald W. Johnson, D.D.S., M.P.H. Frank M. Holz, technical information specialist, made major contributions to this report. Dianna L. Jessee typed the numerous statistical tables.

Howard V. Stambler
Director
Division of Health Professions Analysis

Introduction

The statistical tables on the health occupations covered in this report are organized in eleven major groupings, beginning with a set of tables which presents combined data for all the occupations. This is followed by groups of tables of data on the individual health occupations: Physicians (both M.D.'s and D.O.'s), dentists, optometrists, pharmacists, podiatrists, veterinarians, and registered nurses. Then follow two groups of tables which, because of certain special aspects, are placed in Appendices. A very brief Overview section precedes the actual tables.

Health Personnel Supply

The multiple occupation tables give national trend and current figures for personnel supply and ratio to population, and certain data on percent distribution by State. Also, related ratio and percent distribution data are presented by metropolitan areas (Standard Metropolitan Statistical Areas) and non-metropolitan counties (according to size of central city). There is also one table on the age distribution of personnel in the eight occupations.

Certain statistics are provided, in similar tables, for each of the individual occupations. Data are provided on national trends in active personnel supply from 1950 through 1980, together with personnel-to-population ratios. Also presented for all eight occupations is the geographic distribution of active personnel, and their ratio to population, by region, division, and State, as of 1970, 1975, and 1980.

There are a number of tables which provide certain types of statistics for only a few occupations and, in a number of instances, for only one occupation. The national trend tables for physicians (both M.D.'s and D.O.'s) and for dentists give data not only on active personnel but also on the total supply (i.e., including physicians and dentists who are retired or otherwise not professionally active).

A table gives trend data through 1978 on the number and percent distribution of physicians (M.D.'s) by metropolitan areas (SMSA's) and non-metropolitan counties (according to county population). For both physicians (M.D.'s) and dentists, the 1979 ratio of active practitioners to population is presented for metropolitan areas (SMSA's) and non-metropolitan counties (according to size of central city), by region, division, and State.

Trend data through 1980 are given for physicians (M.D.'s) and for dentists in specialty practice, plus related specialist-to-population ratios. In addition, statistics are presented for physicians (M.D.'s) active specifically in primary patient care, together with their ratio to population.

One table shows the trend in the proportion of foreign medical graduates (FMG's) in the total U.S. supply of physicians (M.D.'s). Two other tables show the number and proportion of FMG's among all active physicians (M.D.'s), by type of practice (including individual specialties).

The tables in Appendix I give the State by State counts of active non-Federal physicians (M.D.'s) and their ratio to population in 1970, 1975, and 1978, by general and family practice and by selected specialty practice, such as pediatrics, psychiatry, and pathology. Appendix II consists of three tables on Federally-designated health manpower shortage areas, with estimates of additional practitioners needed in certain health occupations, as of the end of 1980.

Practice Characteristics

A table presents data for 1978 on number and percent distribution of all active physicians (M.D.'s), and also separately for FMG's, by activity and place of practice, e.g., patient care (office-based and hospital-based), teaching, or research. Another table presents the 1978 number and percent distribution of males and females among active physicians (M.D.'s), by specialty group for patient-care physicians, and by professional activity for other physicians. Estimated data are also given in separate tables on the 1980 number and percent distribution of osteopathic physicians (D.O.'s) by occupational status, of dentists by primary type of employment, and of veterinarians by type of employer.

A group of five tables presents data on various characteristics of a physician's practice--general practice and selected specialty practice--including average number of patient visits per week, average time patients wait for an appointment and waiting time in the physician's office. Also given is average annual physician net income, both actual and adjusted for inflation.

Data are presented for independent dentists, on number of patient visits per week, and on average annual income.

Clarifications and Comment

It is important for the reader to note that there are significant problems with the non-comparability of available data for the eight health occupations covered in this report. Among these problems are data gaps, the different timing of surveys, non-compatible definitions, and especially differences in data from different sources. In order to achieve improved comparability of data on supply trends and current supply distribution, many adjustments in the data obtained from the original sources were deemed necessary. For example, 1978 data on physicians (M.D.'s), the latest available at the time of the compilation of this report, were updated to 1980 and adjusted to include physicians of unknown address or unknown activity. Such 1980 estimates are generally made for large aggregates of health personnel, such as personnel in groups of medical specialties or in the largest of the specialties.

Data on nurses present another problem of comparability. Traditionally, estimates for registered nurses have been compiled as of January 1, which results in a full year difference with the statistics on other health occupations, which use December 31 of the same year. Therefore, it was decided to depart from previously published data on nurses and, instead, to use January 1 of the year following the year listed in the tables as the effective date for nursing data in this report, in order to reduce the difference in effective date to only one day instead of a full year. For

example, by this adjustment or shift of date, nursing data as of January 1, 1981 have virtually the same effective date as data compiled as of December 31, 1980 for the other health occupations in this report. Such nursing data are shown as being for 1980, with appropriate footnotes.

There are other caveats and precautions the reader should keep in mind. For example, comments and footnotes regarding trend data as given in some sources were deemed too numerous or detailed for this report, and were either simplified or omitted. The user who wants all such detail is advised to consult the source identified in the table itself.

The counts of population used in this report are not the same in all cases and vary with the type of health personnel and the nature of the data. Unless otherwise indicated in the individual tables, the definitions for civilian population, resident population, and total population are those given by the U.S. Bureau of the Census. Civilian population includes the civilians in the 50 States and the District of Columbia. Resident population includes the civilian population plus the Armed Forces in the United States. Total population includes the resident population, plus the Armed forces overseas, but does not include the civilians in U.S. Possessions (Puerto Rico, Virgin Islands, Canal Zone, and Pacific Islands).

There are other variations in the populations used. For example, in the data on the supply of physicians (M.D.'s) and of pharmacists, the counts of personnel include those in U.S. Possessions (which is not the case for any other occupations). Addition of the civilians in U.S. Possessions to the total population was therefore required to obtain valid ratios of M.D.'s and pharmacists to population.

The reader will also note slight variations in the ratios of health personnel to population in the national trend data and in State by State data for 1970, 1975, and 1980, for each of the health occupations. These variations are the result of differences in one or more types of data, primarily: 1) differences in the count of health personnel (e.g., total, all active, active non-Federal); 2) inclusion or exclusion of health personnel and of populations in U.S. Possessions; 3) counts for different categories of population (e.g., total, civilian, resident); and 4) differences in the same category of population, depending on whether the count is as of July 1 or December 31.

It is necessary to use a July 1 population count (instead of December 31) for the State by State personnel-to-population ratios for the health occupations in 1970, 1975, and 1980. The July 1 population is used because that is the closest date for which the U.S. Bureau of the Census provides population estimates by individual States, divisions, and regions. The civilian population as of July 1 is used for computation of personnel-to-population ratios in the tables for State by State data for physicians (M.D.'s and D.O.'s) because Federal personnel are excluded, and for dentists because Armed Forces personnel are excluded. Resident population as of July 1 is used for all the other occupations because the counts include Federal personnel.

The statistical data given in the report for the eight health occupations represent the best estimates it was possible to make, in light of the available data. When currently available data are updated, or more accurate or detailed data become available, these will be taken into account to revise the estimates presented in this report.

Following is a narrative Overview section which presents illustrative data highlights from the statistical tables, but without reference to any individual table. After the Overview, there is the List of Tables, grouped according to the eleven sections of this report. The main part of the report--the statistical tables--then follows, section by section, with no supporting text.

Overview

The number of personnel in all eight health occupations covered in this report increased significantly during the 1950-1980 period, as did also the personnel-to-population ratio. However, there was a great deal of variation in the pattern and scale of these increases.

Registered nurses were in the vanguard in the large and steady increase of personnel; their ratio to population more than doubled between 1950 and 1980. The next largest proportional increase was among veterinarians, who almost doubled their ratio to population. The trend for physicians (M.D.'s) was also characterized by a notable increase in supply over the three decades. The increase in number of physicians was comparatively small from 1950 to 1965, but the rate of increase accelerated significantly from 1965 to 1980.

In the years 1950-1965, the number of osteopathic physicians, dentists, optometrists, pharmacists, and podiatrists all grew less than did the population. However, the mid-1960's generally marked a turning point in the supply trend of these occupations. From 1965 to 1980, personnel increases for all of these occupations exceeded the rate of population growth and, for some of them, by a considerable amount.

Despite the overall increase in number and ratio to population of personnel in all eight health occupations, there is still a considerably uneven distribution, although to varying degrees, as is evident in data both by region and by metropolitan/non-metropolitan areas.

Among the regions, the Northeast had, in 1980, the best supply in relation to population for several health occupations: Physicians (M.D.'s), dentists, podiatrists, and registered nurses. The South generally had much less favorable ratios and had, or shared, the least favorable regional ratio for six of the eight health occupations in this report. Osteopathic physicians (D.O.'s) and podiatrists are the most maldistributed practitioners among the regions. Only pharmacists were relatively evenly distributed among all regions, in relation to population.

As between metropolitan areas and non-metropolitan counties, there were also uneven distributions of most health personnel, ranging in 1979 from relatively minor disparities to considerable differences. The greatest disparity was for the occupation with the smallest number of practitioners--podiatrists; their ratio per 100,000 population was 4.6 for metropolitan areas and only 1.5 for non-metropolitan. The next greatest disparity occurred with physicians (M.D.'s); their ratio of 213 per 100,000 population in metropolitan areas was more than double the ratio in non-metropolitan counties. In contrast, there was a much more even distribution of personnel in two of the health occupations in 1979--for pharmacists, distribution was relatively even, with 65 per 100,000 population for metropolitan areas and 57 for non-metropolitan; for optometrists, it was virtually the same with 9.8 and 9.7.

Because of inadequate supplies of health personnel, many parts of the country have been Federally-designated as health manpower shortage areas, with an indicated need for various numbers of additional practitioners of the different health occupations. It was estimated that, by the end of 1980, 5,835 additional physicians were needed to provide primary patient care in 1,921 designated shortage areas, in order for the shortage-area designations

to be removed. Similarly, there was an estimated need for 2,442 additional dentists for removal of the shortage area designations from 916 areas. The needs for additional practitioners in some health occupations were at much lower levels; for example, 174 additional pharmacists were needed for 132 designated shortage areas.

An important aspect of manpower supply is distribution of active personnel by age. In 1980, there were considerable variations in the age levels of the various health occupations. Registered nurses were the youngest group, with a median age of 38 years. Pharmacists also constituted a rather young work force, with a median age of 39. The practitioners with the highest median age were optometrists, at 48; this group had more than one-third of its active personnel aged 55 or over.

Physicians (M.D.'s)

The total number of physicians (M.D.'s) in the United States and its Possessions increased considerably from 219,997 in 1950 to an estimated 460,500 in 1980. There has also been a considerable increase in active physicians from 208,997 in 1950 to an estimated 1980 count of 429,800 (including some 20,000 in Federal service). However, the ratio of active physicians to population held steady at 134 per 100,000 throughout the 1950's and only began to increase during the 1960's, eventually reaching an estimated ratio of 189 active physicians per 100,000 population in 1980.

At the time of the preparation of this report, detailed data on the total and active supply of physicians (M.D.'s) were available from the American Medical Association only through 1978. Total and active physician counts for 1979 and 1980 were estimated in order to obtain physician data comparable with counts for the other health occupations. (The 1979 A.M.A. data became available subsequent to compilation of the statistical tables for this report, and thus 1979 estimates presented herein differ somewhat from the most recent A.M.A. data.) In addition, the number of active physicians for the years 1975 through 1980 were adjusted to include about 90 percent of physicians either with address unknown or not classified as to status or activity by A.M.A. All "adjusted" data are so identified on every table where such data appear.

Among the regions, the 1980 estimated distribution of active non-Federal physicians is rather uneven, with the best ratio, 225 physicians per 100,000 population, in the Northeast, followed by the West. The North Central ratio was considerable lower and the South was lowest with 159 per 100,000.

On a national basis, over the past decade, the distribution of active non-Federal physicians has been quite unequal between metropolitan areas and non-metropolitan counties. In 1970, the metropolitan ratio was 166 physicians per 100,000 population and the non-metropolitan ratio was 75; by 1979, these respective ratios were estimated at 213 and 90.

Physicians active in primary patient care, as identified in this report, are those in general and family practice and in the two specialties of internal medicine and pediatrics. The number of primary-care physicians increased from 113,090 in 1965 to an estimated 166,640 in 1980, while the ratio increased from 57 to 73 per 100,000 population. This increase is accounted for entirely by internal medicine and pediatrics, since physicians in general and family practice actually declined both in number and in physician-to-population ratio.

Physicians active in the medical specialties group increased from 61,435 in 1965 to an estimated 131,570 in 1980, more than doubling in number and almost doubling the ratio to population from 31 to 58 per 100,000. Physicians active in the surgical specialties group increased less steeply from 73,185 to an estimated 113,130, with the ratio rising from 37 to 50 per 100,000 population. In 1980, there were an estimated 123,480 physicians in all "other specialties," considered as a group, a sizeable increase over the 1965 level.

Foreign medical graduates (FMG's) have come to comprise an increasingly large proportion of physicians in the United States. Exclusive of graduates of Canadian medical schools, FMG's numbered an estimated 94,600 in 1979, or 21 percent of the total supply. FMG's are especially prominent among active practitioners of certain medical specialties (e.g., anesthesiology) and are less prominent in general and family practice.

In 1978, of about 375,800 active physicians (M.D.'s), 91 percent were providing patient care, of whom 64 percent were office-based and 27 percent were hospital-based. Among the others, 3 percent each were employed in administration and in research, and 2 percent in medical teaching. Foreign medical graduates figured prominently in all of these groups, but especially among hospital-based physicians and physicians in research.

Active women M.D.'s in 1978--about 35,500--represented 9 percent of all physicians active in patient care, and 11 percent of physicians active in teaching, administration, research and other activities. Women are relatively well represented in the medical specialties and other specialties, and least represented in surgical specialties.

In 1979, the average number of patient visits to physicians (M.D.'s) per week was 123, ranging from a high of 158 patients per week for general practitioners to a low of 57 for psychiatrists. The average number of patient visits also varied significantly between the largest metropolitan areas (of 1,000,000 or more population) and non-metropolitan counties, with 109 and 153 visits per week respectively.

The average number of hours per week in physician (M.D.) practice in 1979 was 50, of which 45 were devoted to direct patient care. The average number of weeks of practice in 1978 was 47.

The average patient waiting time in 1979 for a new patient to be given a physician's appointment was 4 days for a specific complaint and 9 days for a routine visit. The average waiting time for the patient in the physician's office was 21 minutes.

The average net income physicians received from medical practice increased from $41,800 in 1970 to an estimated $68,600 in 1979. Average net income for general practitioners in 1979 reached $55,500, and for specialists it ranged from a high of $86,600 for surgeons to a low of $53,200 for psychiatrists. However, the net income for all physicians, when adjusted for the effects of inflation, actually declined 12 percent from 1970 to 1979.

Osteopathic Physicians (D.O.'s)

The total number of osteopathic physicians increased from 12,700 in 1950 to 18,820 by 1980--of whom 17,670 were active. After a period of decline, the ratio of active osteopaths to population rose to an estimated 7.9 per 100,000 population in 1980, slightly higher than the level had been in 1950.

Among the regions, the 1980 distribution of active non-Federal osteopaths varied greatly. The North Central ratio of 12.5 osteopaths per 100,000 population was nearly triple the 4.3 ratio of the South and West.

About 80 percent of active osteopaths are employed in patient care, most of them office-based and comparatively few practicing in hospitals. Eleven percent are interns, residents, or in other advanced training.

Dentists

At the end of 1980, there were a total of 141,280 dentists, of whom 126,240 were active, with about 5,000 serving in the Armed Forces. The 79,190 active dentists in 1950 represented a ratio of 52 per 100,000 population. This ratio declined to a low of 49 in 1965, after which there was a steady increase to the present level of 56 per 100,000.

In 1980, the distribution of active civilian dentists varied considerably from 65 and 64 dentists per 100,000 population for the Northeast and West, respectively, to a ratio of 44 per 100,000 in the South. On a national basis, there is a similar variation in ratios, with 60 active civilian dentists per 100,000 population in metropolitan areas, compared with 37 per 100,000 in non-metropolitan counties.

The number of dental specialists increased from 9,322 in 1970 to 17,160 in 1980, representing an increase in ratio to population from 4.5 specialists per 100,000 population to 7.7 per 100,000.

About 87 percent of active dentists are in private practice. The others are distributed among various types of employment, including 4 percent in the Armed Forces and 3 percent on dental school faculties.

Independent dentists averaged 79 patient visits per week in 1977. In 1978, the average net income was $44,071 for general practitioners and $63,020 for dental specialists--in both instances for independent dentists in solo practice.

Optometrists

The increase in number of active optometrists from 14,750 in 1950 to 22,330 in 1980 no more than kept pace with the increase in population. In 1980 the ratio of active optometrists was 10 per 100,000 population, the same as in 1950. Among the regions, the West had the most favorable ratio of 12 and the South had the lowest ratio of 8.

Pharmacists

The number of active pharmacists in the United States and its Possessions increased steadily from 88,300 in 1950 to 144,260 in 1980. The trend of the ratio of pharmacists to population was more uneven; the ratio rose gradually to 63 per 100,000 population in 1980, after it had declined for some years from the 1950 level of 57.

The distribution of active pharmacists in 1980 was rather even among the regions, with a low in the Northeast of 61 per 100,000 population and a high of 68 in the North Central region.

Podiatrists

Between 1950 and 1980 the number of active podiatrists rose from 6,400 to 8,880. However, the 1980 ratio of 4 podiatrists per 100,000 population was virtually the same as it was in 1950. Podiatrists are unevenly distributed among the regions, ranging from a high of 6.3 per 100,000 population in the Northeast to a low of 2.5 in the South.

Veterinarians

From 1950 to 1980, the supply of active veterinarians grew at a steady rate, both in number, from 13,500 to 36,000, and in ratio to population, from 9 to 16 veterinarians per 100,000 population. There is a somewhat sizeable variation in regional distribution of veterinarians, from a low of 11 per 100,000 population in the Northeast to a high of 20 per 100,000 in the North Central region.

More than half (53 percent) of all veterinarians are self-employed and another 25 percent are private-practice employees. The others are distributed among colleges, industry, Federal, State, and local government, and the Armed Forces.

Registered Nurses

There has been a great increase in the number of active registered nurses in recent decades—from 335,000 in 1950 to 1,164,000 in 1980—attaining the present ratio of 520 active nurses per 100,000 population. Estimating the full-time equivalency of the part-time nurse work force and adding them to the count of full-time nurses provides a full-time equivalent of 984,000 active registered nurses in 1980, or 440 full-time equivalent nurses per 100,000 population.

There was a considerable variation in regional distribution in 1980, ranging from 620 active nurses per 100,000 population in the Northeast to 424 per 100,000 in the South.

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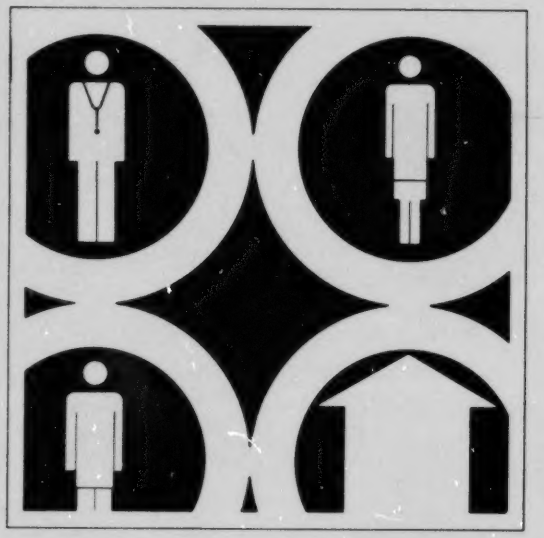

Table A-1
NUMBER OF ACTIVE HEALTH PERSONNEL, BY OCCUPATION, AND RESPECTIVE RATIOS TO POPULATION: SELECTED YEARS, DECEMBER 31, 1950-1980 1/

Active health personnel 2/	1950		1965		1970		1975		1980	
	Number	Personnel per 100,000 population	Number	Personnel per 100,000 population	Number	Personnel per 100,000 population	Number	Personnel per 100,000 population	Number	Personnel per 100,000 population
Physicians	219,897	140.9	288,675	145.5	323,185	154.5	377,350	173.1	447,470	196.3
M.D.'s 3,4/	208,997	134.0	277,575	139.9	310,845	148.7	363,290	166.7	429,800	188.6
D.O.'s	10,900	7.1	11,100	5.7	12,340	6.0	14,060	6.6	17,670	7.9
Dentists	79,190	51.5	95,990	49.0	102,220	49.6	112,020	52.2	126,240	56.3
Optometrists	14,750	9.6	17,300	8.8	18,400	8.9	19,940	9.3	22,330	10.0
Pharmacists 3/	88,300	56.6	104,100	52.5	113,700	54.4	122,480	56.2	144,260	63.3
Podiatrists	6,400	4.2	7,600	3.9	7,110	3.4	7,260	3.4	8,880	4.0
Veterinarians	13,500	8.8	23,300	11.9	25,900	12.6	31,050	14.5	36,000	16.1
Registered nurses 5/	335,000	218.1	621,000	317.6	750,000	363.9	961,000	448.1	1,164,000	519.9

1/ All ratios are based on total population, except ratios for physicians (M.D.'s) and pharmacists, which are based on total population plus civilian population in U.S. Possessions, i.e., Puerto Rico, Virgin Islands, Canal Zone, and Pacific Islands.

2/ Includes health personnel in Federal service.

3/ Includes physicians (M.D.'s) and pharmacists in U.S. Possessions.

4/ Numbers for 1975 and 1980 are adjusted.

5/ Numbers of nurses are actually as of January 1 of the year following the year listed.

SOURCE: For sources of data, see the respective trend table for each occupation on estimated number of active personnel and personnel-to-population ratios.

Table A-2
NUMBER OF ACTIVE HEALTH PERSONNEL, BY OCCUPATION, AND RESPECTIVE RATIOS TO POPULATION, BY REGION: DECEMBER 31, 1970 AND 1980 1/

Active health personnel	1970						1980					
	Number of active personnel	Active personnel per 100,000 population					Number of active personnel	Active personnel per 100,000 population				
		All regions	North-east	North Central	South	West		All regions	North-east	North Central	South	West
Physicians 2/	290,862	142.7	185.0	127.5	114.8	158.2	422,310	191.4	233.6	175.0	163.7	212.3
M.D.'s 3,4/	279,212	137.0	178.7	118.2	111.5	154.8	405,800	183.9	224.9	162.5	159.4	208.0
D.O.'s	11,650	5.7	6.3	9.3	3.3	3.4	16,510	7.5	8.7	12.5	4.3	4.3
Dentists 2/	95,680	47.4	58.9	46.3	35.3	54.9	121,240	54.9	65.2	53.1	44.4	63.7
Optometrists	18,400	9.0	9.7	10.3	6.6	10.5	22,330	10.1	10.2	11.2	8.0	12.3
Pharmacists 3/	112,570	55.4	60.1	57.5	50.6	52.9	142,780	64.7	60.8	67.7	65.0	64.6
Podiatrists	7,110	3.5	6.0	3.6	1.6	3.0	8,880	4.0	6.3	3.9	2.5	4.1
Veterinarians	25,900	12.7	8.3	16.1	11.8	15.0	36,000	16.3	10.8	19.9	16.0	18.5
Registered nurses 5/	750,000	368.9	491.2	367.5	281.8	355.9	1,164,000	520.1	620.3	547.4	423.8	529.7

1/ All ratios for physicians (M.D.'s and D.O.'s) and dentists are based on civilian population; ratios for all other listed health occupations are based on resident population.

2/ Excludes physicians (M.D.'s and D.O.'s) in all Federal service; excludes dentists in military service.

3/ Excludes physicians (M.D.'s) and pharmacists in U.S. Possessions.

4/ Number for physicians (M.D.'s) is adjusted for 1980.

5/ Data for nurses are actually as of January 1 of 1971 and 1981 respectively.

SOURCE: For sources of data, see the respective trend table with estimated number of personnel and personnel-to-population ratio for each occupation, by region, division, and State.

Table A-3
PERCENT DISTRIBUTION OF ACTIVE PERSONNEL IN SELECTED HEALTH OCCUPATIONS, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1980

Geographic area	Percent distribution								
	Civilian population July 1, 1980	Physicians 1/		Dentists 1/	Optometrists	Pharmacists	Podiatrists	Veterinarians	Registered nurses 2/
		M.D.	D.O.						
UNITED STATES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NORTHEAST	22.6	27.6	26.3	26.8	22.9	21.3	35.2	15.0	27.2
New England	5.6	7.2	3.0	6.7	6.5	6.0	7.7	4.1	8.1
Connecticut	1.4	1.9	0.2	1.9	1.4	1.6	2.3	1.1	1.9
Maine	0.5	0.4	1.3	0.4	0.5	0.4	0.3	0.4	0.6
Massachusetts	2.7	3.7	0.9	3.4	3.5	3.0	4.1	1.6	4.1
New Hampshire	0.4	0.4	0.1	0.4	0.3	0.4	0.3	0.4	0.6
Rhode Island	0.4	0.5	0.5	0.4	0.5	0.4	0.5	0.2	0.6
Vermont	0.2	0.3	0.1	0.2	0.3	0.2	0.1	0.4	0.3
Middle Atlantic	16.9	20.4	23.3	20.1	16.4	15.3	27.5	10.9	19.1
New Jersey	3.4	3.4	6.4	4.0	2.9	3.2	4.9	2.2	3.5
New York	8.1	11.5	3.2	10.6	7.9	7.5	13.9	4.9	9.2
Pennsylvania	5.4	5.5	13.6	5.5	5.5	4.6	8.7	3.8	6.3
NORTH CENTRAL	26.5	23.4	44.2	25.6	29.2	27.7	25.8	32.2	27.4
East North Central	18.8	16.7	32.2	18.0	20.9	19.1	21.1	18.5	18.7
Illinois	5.1	5.1	2.9	5.1	7.0	5.4	7.2	4.6	4.8
Indiana	2.4	1.8	1.3	1.9	2.9	2.8	1.8	2.8	2.5
Michigan	4.2	3.6	17.4	4.2	3.6	4.0	4.9	3.9	3.8
Ohio	4.9	4.4	9.3	4.4	5.2	4.6	5.6	4.4	5.1
Wisconsin	2.2	1.8	1.3	2.4	2.3	2.2	1.7	2.8	2.5
West North Central	7.7	6.7	12.0	7.6	8.2	8.6	4.7	13.7	8.7
Iowa	1.3	0.9	2.9	1.2	1.4	1.5	1.1	3.6	1.4
Kansas	1.0	0.9	1.5	0.9	1.5	1.2	0.6	2.1	1.1
Minnesota	1.8	1.9	0.3	2.1	1.7	1.9	0.9	2.7	2.5
Missouri	2.2	1.9	7.1	2.0	2.0	2.2	1.4	2.8	2.1
Nebraska	0.7	0.6	0.1	0.8	0.8	1.0	0.4	1.4	0.8
North Dakota	0.3	0.2	*	0.2	0.4	0.4	0.1	0.4	0.4
South Dakota	0.3	0.2	0.1	0.3	0.4	0.4	0.1	0.7	0.4
SOUTH	32.7	28.4	18.9	26.5	25.8	32.9	20.4	32.1	26.8
South Atlantic	16.4	15.5	8.4	13.7	12.8	14.7	12.9	14.5	14.9
Delaware	0.3	0.3	0.4	0.2	0.2	0.2	0.3	0.2	0.4
District of Columbia	0.3	0.9	0.1	0.4	0.4	0.5	0.8	0.3	0.6
Florida	4.3	4.1	5.8	3.8	4.2	2.9	5.3	4.0	4.0
Georgia	2.4	1.8	0.8	1.9	1.6	2.9	1.3	2.4	1.5
Maryland	2.0	2.5	0.2	2.1	1.2	1.7	2.2	2.3	2.2
North Carolina	2.6	2.1	0.2	1.8	1.7	2.2	0.9	1.9	2.0
South Carolina	1.3	1.0	*	0.9	1.1	1.3	0.3	0.8	1.1
Virginia	2.4	2.1	0.3	2.1	1.9	2.3	1.4	2.2	2.1
West Virginia	0.8	0.6	0.6	0.6	0.5	0.7	0.5	0.4	0.9
East South Central	6.4	4.7	0.8	4.9	4.6	7.1	2.1	5.9	4.9
Alabama	1.7	1.2	0.1	1.1	0.9	1.9	0.5	1.7	1.2
Kentucky	1.6	1.2	0.2	1.3	1.1	1.7	0.7	1.5	1.3
Mississippi	1.1	0.6	0.1	0.6	0.7	1.2	0.2	1.0	0.8
Tennessee	2.0	1.7	0.4	1.8	1.9	2.3	0.7	1.7	1.6
West South Central	10.0	8.2	9.8	7.9	8.3	11.1	5.4	11.7	7.0
Arkansas	1.0	0.7	0.1	0.6	0.9	1.2	0.3	0.9	0.5
Louisiana	1.8	1.5	0.1	1.4	1.2	2.1	0.6	1.6	1.2
Oklahoma	1.3	0.9	3.4	1.0	1.5	1.5	0.8	1.9	0.8
Texas	5.9	5.1	6.2	4.8	4.7	6.3	3.8	7.2	4.4
WEST	18.2	20.6	10.6	21.1	22.1	18.1	18.6	20.7	18.6
Mountain	4.8	4.4	5.6	4.9	4.6	4.7	4.0	6.9	5.0
Arizona	1.1	1.1	2.6	1.0	0.9	1.0	1.1	1.3	1.2
Colorado	1.3	1.4	1.7	1.4	1.3	1.2	1.0	2.1	1.7
Idaho	0.4	0.3	0.1	0.4	0.5	0.5	0.2	0.8	0.4
Montana	0.3	0.3	0.1	0.4	0.5	0.4	0.2	0.8	0.2
Nevada	0.3	0.2	0.2	0.3	0.3	0.2	0.3	0.4	0.2
New Mexico	0.6	0.4	0.7	0.5	0.5	0.6	0.5	0.6	0.5
Utah	0.6	0.6	0.1	0.7	0.3	0.6	0.6	0.5	0.5
Wyoming	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.4	0.2
Pacific	13.4	16.2	4.9	16.2	17.5	13.4	14.6	13.8	13.6
Alaska	0.2	0.1	*	0.2	0.1	0.2	*	0.2	0.2
California	10.1	12.8	2.1	11.8	13.3	9.7	12.4	9.4	9.6
Hawaii	0.4	0.4	0.2	0.5	0.5	0.2	0.1	0.3	0.6
Oregon	1.1	1.1	1.3	1.5	1.6	1.2	0.7	1.4	1.3
Washington	1.6	1.7	1.3	2.2	2.0	2.1	1.3	2.5	1.9

* Percent is less than 0.05.

1/ Percent distribution of physicians (M.D.'s and D.O.'s) excludes those in all Federal service, and excludes dentists in military service.

2/ Percent distribution for nurses is actually as of January 1, 1981.

SOURCE: For sources of the data from which the above percent distributions were computed, see the respective trend table for each occupation on number of active personnel and on personnel-to-population ratios, by region, division, and State.

Table A-4
RATIO OF ACTIVE HEALTH PERSONNEL TO POPULATION, BY OCCUPATION,
IN METROPOLITAN AREAS AND NON-METROPOLITAN COUNTIES: DECEMBER 31, 1979

Active health personnel	Active health personnel per 100,000 population 1/										
		Metropolitan areas, by population					Non-metropolitan counties, by size of central city				
	All areas	Total	1,000,000 or more	500,000-999,999	250,000-499,999	Under 250,000	Total	25,000 or more	10,000-24,999	5,000-9,999	Under 5,000
Physicians 2/	187.1	220.9	251.4	204.0	180.4	163.3	94.7	148.1	106.1	85.7	55.7
M.D.'s	179.9	213.0	242.6	196.0	173.2	158.3	89.5	143.7	100.8	80.4	50.2
D.O.'s	7.2	7.9	8.8	8.0	7.2	5.0	5.2	4.4	5.3	5.3	5.5
Dentists 2/	54.2	60.4	65.7	56.2	53.2	50.9	37.4	50.2	40.1	35.1	27.1
Optometrists	9.8	9.8	10.2	9.3	9.4	9.5	9.7	10.8	10.8	10.9	7.0
Pharmacists	63.1	65.3	67.5	63.8	61.8	61.9	56.7	63.2	58.4	57.1	50.5
Podiatrists	3.8	4.6	5.5	4.0	3.3	3.0	1.5	3.0	2.1	1.1	0.4
Veterinarians	16.1	14.1	12.7	12.8	16.0	19.7	21.4	24.2	19.9	21.0	21.9
Registered nurses 3/	523.4	575.4	580.0	589.7	557.1	559.8	380.4	530.2	438.2	357.1	240.1

1/ All ratios for physicians (M.D.'s and D.O.'s) and dentists are based on civilian population; ratios for all other listed health occupations are based on resident population.

2/ Computation of ratios excludes physicians (M.D.'s and D.O.'s) in all Federal service and excludes dentists in military service.

3/ Data for nurses are actually as of January 1, 1980.

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on the distribution of the respective occupational groups as provided in the latest data collected.

Table A-5
PERCENT DISTRIBUTION OF ACTIVE HEALTH PERSONNEL, BY OCCUPATION,
IN METROPOLITAN AREAS AND NON-METROPOLITAN COUNTIES: DECEMBER 31, 1979

Population and active health personnel	Percent distribution										
		Metropolitan areas, by population					Non-metropolitan counties, by size of central city				
	All areas	Total	1,000,000 or more	500,000-999,999	250,000-499,999	Under 250,000	Total	25,000 or more	10,000-24,999	5,000-9,999	Under 5,000
U.S. resident population	100.0	73.3	39.9	13.0	11.1	9.3	26.7	4.7	8.6	5.8	7.6
Physicians 1/	100.0	86.2	53.1	14.2	10.8	8.1	13.8	3.8	5.1	2.7	2.2
M.D.'s	100.0	86.5	53.3	14.2	10.8	8.2	13.5	3.8	5.0	2.6	2.1
D.O.'s	100.0	80.9	49.1	14.4	11.0	6.4	19.1	2.9	6.3	4.3	5.6
Dentists 1/	100.0	81.5	48.3	13.6	10.9	8.7	18.5	4.4	6.5	3.7	3.9
Optometrists	100.0	74.1	42.8	12.3	10.3	8.7	25.9	5.1	9.2	6.3	5.3
Pharmacists	100.0	76.2	43.2	13.2	10.8	9.0	23.8	4.7	7.9	5.2	6.0
Podiatrists	100.0	89.1	58.7	13.6	9.5	7.3	10.9	3.7	4.8	1.7	0.7
Veterinarians	100.0	64.5	31.6	10.4	11.1	11.4	35.5	7.0	10.6	7.6	10.3
Registered nurses 2/	100.0	80.6	44.2	14.7	11.8	9.9	19.4	4.8	7.2	3.9	3.5

1/ Percent distribution of physicians (M.D.'s and D.O.'s) excludes those in all Federal service and excludes dentists in military service.

2/ Data for nurses are actually as of January 1, 1980.

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on the distribution of the respective occupational groups as provided in the latest data collected.

Table A-6
RATIO OF ACTIVE HEALTH PERSONNEL TO POPULATION, BY OCCUPATION, IN METROPOLITAN AREAS AND NON-METROPOLITAN COUNTIES, BY REGION: DECEMBER 31, 1979

Active health personnel	Active health personnel per 100,000 population 1/									
	All regions		Northeast		North Central		South		West	
	Metropolitan areas	Non-metropolitan counties	Metropolitan areas	Non-metropolitan counties	Metropolitan areas	Non-metropolitan counties	Metropolitan areas	Non-metropolitan counties	Metropolitan areas	Non-metropolitan counties
Physicians 2/	220.9	94.7	248.9	126.7	204.1	91.0	206.0	83.0	226.7	110.6
M.D.'s	213.0	89.5	240.1	119.9	191.1	81.7	200.6	80.9	222.7	106.0
D.O.'s	7.9	5.2	8.8	6.8	12.9	9.3	5.4	2.1	4.0	4.6
Dentists 2/	60.4	37.4	69.9	46.2	56.6	40.5	51.4	29.3	65.1	47.3
Optometrists	9.8	9.7	10.1	9.9	10.3	12.1	8.0	7.4	11.6	11.2
Pharmacists	65.3	56.7	63.0	49.0	69.0	58.8	66.1	58.3	60.8	64.1
Podiatrists	4.6	1.5	6.3	3.0	4.6	2.0	3.3	0.8	4.3	1.7
Veterinarians	14.1	21.4	9.6	18.5	15.3	30.1	15.6	15.0	16.6	24.9
Registered nurses 3/	575.4	380.4	700.2	656.0	582.4	405.0	530.3	289.2	472.6	366.1

1/ All ratios for physicians (M.D.'s and D.O.'s) and dentists are based on civilian population; ratios for all other listed health occupations are based on resident population.

2/ Computation of ratios excludes physicians (M.D.'s and D.O.'s) in all Federal service and excludes dentists in military service.

3/ Data for nurses are actually as of January 1, 1980.

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on the distribution of the respective occupational groups as provided in the latest data collected.

Table A-7
NUMBER, AGE DISTRIBUTION, AND MEDIAN AGE OF ACTIVE HEALTH PERSONNEL, BY OCCUPATION: DECEMBER 31, 1980

Active health personnel 1/	Number of active personnel	Percent distribution, by age group				Median age
		Total	Under 35 years	35-54 years	55 years and over	
Physicians	447,470	100.0	30.0	44.4	25.6	42.4
M.D.'s 2/	429,800	100.0	29.7	44.8	25.8	42.9
D.O.'s	17,670	100.0	34.7	36.6	28.7	41.5
Dentists	126,240	100.0	33.8	44.7	21.5	40.9
Optometrists	22,330	100.0	29.7	34.7	35.6	48.4
Pharmacists 3/	144,260	100.0	40.0	41.1	18.9	39.1
Podiatrists	8,880	100.0	34.5	34.0	31.5	43.3
Veterinarians	36,000	100.0	35.9	43.5	20.6	39.5
Registered nurses 4/	1,164,000	100.0	42.3	44.4	13.3	37.9

1/ Includes health personnel in Federal service.

2/ Number for physicians (M.D.'s) is adjusted. Also, count of physicians includes those in U.S. Possessions.

3/ Includes pharmacists in U.S. Possessions.

4/ Data for nurses are actually as of January 1, 1981.

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

B. Physicians (M.D.'s)

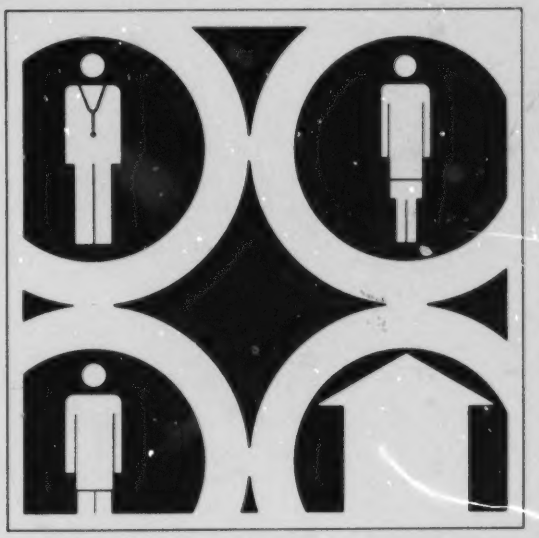

Table B-1
TOTAL AND ACTIVE PHYSICIANS (M.D.'S) AND PHYSICIAN-TO-POPULATION RATIOS:
DECEMBER 31, SELECTED YEARS 1950-1978, AND ADJUSTED DATA FOR 1975 THROUGH 1980

Year	Number of physicians 1/		Total population (thousands) 2/	Physicians per 100,000 population		Active non-Federal physicians	Civilian population (thousands) 3/	Active non-Federal physicians per 100,000 civilian population
	Total	Active		Total	Active			
1950	219,997	208,997	156,024	141.0	134.0	193,900	153,640	126.2
1955	241,711	228,553	169,959	142.2	134.5	213,000	167,043	127.5
1960	260,484	247,257	184,896	140.9	133.7	230,200	182,351	126.2
1965	292,088	277,575	198,357	147.3	139.9	254,761	195,451	130.3
1970	334,028	310,845	209,096	159.7	148.7	281,344	206,129	136.5
1975	393,742	340,280	217,966	180.6	156.1	312,089	215,828	144.6
1976	409,446	348,443	219,648	186.4	158.6	320,865	217,515	147.5
1977	421,278	363,619	221,419	190.3	164.2	343,693	219,300	156.7
1978	437,486	375,811	223,274	195.9	168.3	355,569	221,275	160.7
1975 4/	393,742	363,290	217,966	180.6	166.7	335,100	215,828	155.3
1976 4/	409,446	377,320	219,648	186.4	171.8	349,740	217,515	160.8
1977 4/	421,278	391,180	221,419	190.3	176.7	371,250	219,300	169.3
1978 4/	437,486	403,820	223,274	195.9	180.9	383,580	221,275	173.3
1979 4,5/	450,800	416,680	225,099	200.3	185.1	396,680	223,012	177.9
1980 4,5/	460,500	429,800	227,911	202.1	188.6	409,460	225,766	181.4

1/ Includes physicians in Federal service; also includes physicians in U.S. Possessions, i.e., Puerto Rico, Virgin Islands, Canal Zone, and Pacific Islands.

2/ Total population includes civilian population in U.S. Possessions.

3/ Includes civilian population in U.S. Possessions.

4/ These numbers of active physicians are adjusted to include about 90 percent of those either with unknown address or not classified as to status or activity by the American Medical Association.

5/ Total and active physician counts for 1979 and 1980 are estimated.

SOURCE: Data for 1950 through 1960 from U.S. Department of Health, Education, and Welfare, National Center for Health Statistics. Health Resources Statistics 1965, PHS Publication No. 1509, 1966.

Data for 1965 through 1978 (unadjusted) from American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues.

Adjusted data for 1975 through 1980 from Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

U.S. Bureau of the Census. Current Population Report P-25, Nos. 336, 438, 542, 603, and 812.

Table B-2
NUMBER OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) AND PHYSICIAN-TO-POPULATION RATIOS, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, AND ADJUSTED DATA FOR 1975 AND 1980

Geographic area	1970		1975 1/		1980 1/	
	Active non-Federal physicians	Active non-Federal physicians per 100,000 civilian population	Active non-Federal physicians	Active non-Federal physicians per 100,000 civilian population	Active non-Federal physicians	Active non-Federal physicians per 100,000 civilian population
UNITED STATES 2/	279,212	137.0	332,223	155.9	405,800	183.9
NORTHEAST	87,840	178.7	97,412	197.0	112,161	224.9
New England	20,455	172.3	24,293	199.3	29,177	232.5
Connecticut	5,412	178.1	6,405	206.6	7,803	249.0
Maine	972	97.7	1,288	121.7	1,683	151.2
Massachusetts	11,036	193.6	12,889	221.7	15,123	252.8
New Hampshire	925	124.7	1,188	146.3	1,489	171.5
Rhode Island	1,355	142.5	1,631	175.2	2,006	208.9
Vermont	755	168.9	892	189.0	1,074	217.9
Middle Atlantic	67,385	180.8	73,119	196.2	82,985	222.3
New Jersey	9,770	135.8	11,880	162.0	13,739	183.5
New York	40,730	223.1	42,501	235.1	46,692	260.4
Pennsylvania	16,885	142.9	18,738	158.0	22,554	189.4
NORTH CENTRAL	67,076	118.2	78,296	135.8	94,968	162.5
East North Central	48,224	119.5	56,126	137.1	67,821	163.6
Illinois	14,462	129.9	17,426	155.6	20,840	185.1
Indiana	4,988	95.8	5,788	108.9	7,147	132.8
Michigan	10,384	116.7	12,277	134.7	14,553	156.6
Ohio	13,387	125.3	14,723	137.1	17,838	165.8
Wisconsin	5,003	112.9	5,912	128.8	7,444	156.3
West North Central	18,852	115.2	22,170	132.8	27,147	159.7
Iowa	2,733	96.6	3,010	105.2	3,762	129.7
Kansas	2,426	107.9	2,918	128.0	3,643	158.5
Minnesota	5,420	141.8	6,361	162.2	7,928	196.5
Missouri	5,647	120.3	6,737	141.3	7,845	162.0
Nebraska	1,581	106.1	1,918	124.2	2,378	149.5
North Dakota	542	87.7	663	104.1	854	132.7
South Dakota	503	75.5	563	82.7	737	107.5
SOUTH	70,222	111.5	90,470	133.0	115,151	159.4
South Atlantic	37,588	122.1	49,758	147.8	62,867	174.0
Delaware	682	124.0	809	139.7	987	165.3
District of Columbia	2,745	364.5	3,101	435.5	3,506	520.2
Florida	8,480	123.9	12,842	155.2	16,715	175.2
Georgia	4,617	100.3	5,845	118.5	7,501	142.7
Maryland	6,714	170.5	8,501	206.2	10,305	238.3
North Carolina	5,216	102.5	6,717	123.5	8,634	151.2
South Carolina	2,194	86.5	2,986	106.0	3,911	131.8
Virginia	5,234	112.5	6,792	136.4	8,697	167.3
West Virginia	1,706	97.7	2,165	120.3	2,611	141.3
East South Central	12,162	94.8	15,208	112.5	19,157	136.4
Alabama	2,885	83.6	3,617	100.1	4,766	126.8
Kentucky	3,107	96.4	3,946	116.5	4,776	135.4
Mississippi	1,737	78.4	2,047	87.4	2,625	109.0
Tennessee	4,433	112.7	5,598	134.1	6,990	160.4
West South Central	20,472	105.5	25,504	122.2	33,127	150.2
Arkansas	1,629	84.6	2,009	95.2	2,645	119.1
Louisiana	4,141	113.6	4,832	127.0	6,000	153.4
Oklahoma	2,427	94.4	2,931	108.0	3,816	134.7
Texas	12,275	109.1	15,732	128.6	20,666	157.8
WEST	54,074	154.8	66,045	174.3	83,520	208.0
Mountain	10,369	124.3	13,728	142.6	17,896	168.3
Arizona	2,211	123.4	3,497	158.1	4,611	180.8
Colorado	3,627	163.0	4,380	172.4	5,711	204.7
Idaho	624	87.0	773	95.1	1,018	114.4
Montana	679	97.4	828	111.0	1,046	132.7
Nevada	504	102.2	689	116.8	926	141.5
New Mexico	1,043	102.5	1,387	121.2	1,808	146.1
Utah	1,377	128.8	1,799	149.5	2,297	174.0
Wyoming	304	91.0	375	99.7	479	118.2
Pacific	43,705	164.4	52,317	185.0	65,624	222.3
Alaska	199	65.2	334	91.5	460	117.9
California	34,981	175.0	41,467	195.6	51,880	233.9
Hawaii	1,064	137.5	1,385	159.6	1,809	204.1
Oregon	2,803	133.3	3,650	159.8	4,492	184.0
Washington	4,658	136.4	5,481	154.0	6,983	193.1

1/ Numbers of active non-Federal physicians are adjusted for 1975 and 1980 to include about 90 percent of those either with unknown address or not classified as to status or activity by the American Medical Association.

2/ Excludes counts of physicians in U.S. Possessions.

SOURCE: Data for 1970 (unadjusted) from American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1970.

Adjusted data for 1975 and 1980 from Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from American Medical Association, Center for Health Services Research and Development.

Table B-3
NUMBER AND PERCENT DISTRIBUTION OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) AND PHYSICIAN-TO-POPULATION RATIOS, BY METROPOLITAN AREAS AND NON-METROPOLITAN COUNTIES: DECEMBER 31, 1970, AND ADJUSTED DATA FOR 1975 AND 1978

Area classification, by population	1970			1975 1/			1978 1/		
	Active non-Federal physicians		Active non-Federal physicians per 100,000 civilian population	Active non-Federal physicians		Active non-Federal physicians per 100,000 civilian population	Active non-Federal physicians		Active non-Federal physicians per 100,000 civilian population
	Number	Percent distribution		Number	Percent distribution		Number	Percent distribution	
All areas 2/	278,855	100.0	137.3	332,224	100.0	156.5	380,151	100.0	174.7
Metropolitan areas	230,312	82.6	166.0	285,795	86.0	184.4	329,016	86.5	206.0
5,000,000 or more	55,189	19.8	214.2	57,068	17.2	237.0	60,517	15.9	259.9
1,000,000 - 4,999,999	95,228	34.2	179.2	124,734	37.5	196.8	148,785	39.1	222.1
500,000 - 999,999	39,898	14.3	147.1	46,009	13.8	165.1	52,377	13.8	191.1
50,000 - 499,999	39,997	14.3	122.3	57,984	17.5	146.1	67,337	17.7	160.3
Non-metropolitan counties 3/	48,543	17.4	75.3	46,429	14.0	81.0	51,135	13.5	88.3
Potential metropolitan	11,777	4.2	113.3	6,298	1.9	129.0	5,422	1.4	155.8
50,000 or more	14,898	5.4	95.2	16,013	4.8	98.8	20,752	5.5	112.6
25,000 - 49,999	11,547	4.1	67.5	13,519	4.1	82.6	14,315	3.8	84.9
10,000 - 24,999	8,329	3.0	50.6	8,551	2.6	56.0	8,663	2.3	58.5
Less than 10,000	1,992	0.7	40.9	2,048	0.6	44.9	1,983	0.5	45.8

1/ Numbers of active physicians for 1975 and 1978 are adjusted to include about 90 percent of those either with unknown address or not classified as to status or activity by the American Medical Association.

2/ Excludes counts of physicians in U.S. Possessions.

3/ Non-metropolitan counties are classified by county population.

SOURCE: Data for 1970 (unadjusted) from American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1970.

Adjusted data for 1975 and 1978 from Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

Table B-4

RATIO OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) TO POPULATION IN METROPOLITAN AREAS AND NON-METROPOLITAN COUNTIES, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1979

Geographic area	Active non-Federal physicians per 100,000 civilian population						
		Metropolitan areas, by population			Non-metropolitan counties, by size of central city		
	All areas	Total	1,000,000 or more	Under 1,000,000	Total	10,000 or more	Under 10,000
UNITED STATES	179.9	213.0	242.6	177.9	89.5	115.9	63.2
NORTHEAST	221.9	240.1	274.9	166.8	119.9	117.5	125.7
New England	230.2	249.9	330.5	207.6	152.5	146.0	166.7
Connecticut	240.7	250.4	*	250.4	99.8	99.8	*
Maine	151.6	228.8	*	228.8	122.0	135.0	103.2
Massachusetts	253.7	257.8	330.5	150.5	146.8	122.0	156.6
New Hampshire	166.0	136.4	*	136.4	178.7	122.6	514.7
Rhode Island	211.4	229.2	*	229.2	132.4	132.4	*
Vermont	214.0	*	*	*	214.0	277.4	137.4
Middle Atlantic	219.1	237.2	266.2	170.2	104.0	104.2	103.4
New Jersey	182.9	190.8	209.4	165.8	95.2	91.6	102.9
New York	256.0	274.7	294.2	202.3	114.0	124.6	87.4
Pennsylvania	186.2	207.6	244.1	143.9	98.1	89.9	119.5
NORTH CENTRAL	157.7	191.1	209.5	164.4	81.7	112.8	55.4
East North Central	159.1	182.9	206.6	148.5	80.3	98.9	59.4
Illinois	180.2	203.0	212.5	156.3	80.3	104.9	58.2
Indiana	128.8	154.0	221.4	121.5	75.5	99.6	47.9
Michigan	152.7	168.6	168.2	169.2	82.9	112.1	63.2
Ohio	160.1	180.9	232.4	133.3	77.3	85.1	54.6
Wisconsin	153.6	197.7	199.6	195.8	87.2	108.6	69.1
West North Central	154.5	220.9	220.6	221.5	83.5	136.5	52.2
Iowa	124.5	133.7	*	133.7	119.1	244.5	54.7
Kansas	151.7	229.6	275.3	198.9	84.7	105.3	61.2
Minnesota	187.8	248.3	219.3	354.5	76.9	103.6	62.4
Missouri	158.8	218.7	209.9	279.6	54.2	89.9	37.9
Nebraska	148.1	237.9	*	237.9	75.8	116.3	54.4
North Dakota	127.5	239.2	*	239.2	94.2	150.2	57.1
South Dakota	102.5	228.8	*	228.8	80.2	144.0	45.4
SOUTH	158.0	200.6	233.7	181.5	80.9	114.1	56.1
South Atlantic	177.7	218.5	259.0	187.8	97.8	134.2	67.0
Delaware	166.7	194.9	*	194.9	106.4	106.4	*
District of Columbia	524.4	524.4	524.4	*	*	*	*
Florida	186.7	198.7	244.8	169.9	110.6	130.5	88.8
Georgia	143.8	190.7	193.5	185.7	81.4	131.7	43.5
Maryland	242.3	264.7	268.2	54.0	118.4	136.8	89.9
North Carolina	152.3	233.6	*	239.2	85.0	94.9	75.8
South Carolina	131.8	186.7	*	186.7	80.4	95.5	67.3
Virginia	168.0	188.7	190.2	188.0	122.7	229.9	68.6
West Virginia	139.0	176.1	*	176.1	118.1	221.2	65.2
East South Central	132.2	192.6	108.7	195.7	66.9	103.6	44.5
Alabama	123.6	163.6	*	163.6	58.5	85.7	37.7
Kentucky	133.3	207.5	108.7	226.8	72.2	129.5	50.2
Mississippi	107.4	193.4	*	193.4	76.0	111.3	44.2
Tennessee	152.3	207.3	*	207.3	59.7	90.8	43.2
West South Central	143.7	177.8	201.1	160.8	65.8	85.9	51.1
Arkansas	118.3	197.2	*	197.2	68.7	90.3	56.2
Louisiana	145.9	197.4	258.9	146.2	57.5	71.2	42.9
Oklahoma	128.9	172.5	*	172.5	73.7	103.3	46.6
Texas	150.3	171.9	186.9	156.0	66.1	86.2	54.4
WEST	199.4	222.7	247.3	178.9	106.0	123.7	76.3
Mountain	163.7	208.9	257.9	193.0	94.5	118.0	70.5
Arizona	181.4	218.7	*	218.7	72.1	82.7	56.0
Colorado	199.1	221.0	257.9	136.3	107.0	153.7	92.3
Idaho	111.8	174.6	*	174.6	98.8	140.0	58.2
Montana	130.2	174.6	*	174.6	116.0	177.5	68.1
Nevada	131.2	142.9	*	142.9	80.2	171.1	51.6
New Mexico	145.8	253.2	*	253.2	91.6	96.5	76.7
Utah	166.8	193.2	*	193.2	70.5	96.5	59.7
Wyoming	104.5	*	*	*	104.5	120.8	87.5
Pacific	211.9	226.3	246.9	168.4	117.7	127.3	87.6
Alaska 1/	120.1	—	—	—	—	—	—
California	224.4	232.8	247.0	177.2	120.2	127.2	96.8
Hawaii	202.4	214.9	*	214.9	152.1	152.1	*
Oregon	175.5	217.7	260.2	132.5	113.5	126.7	73.3
Washington	173.7	199.9	236.0	143.1	109.2	119.3	84.8

* There is no area in this State with the count of population indicated in the column heading.

1/ Alaska is not divided into counties and therefore only the ratio for the entire State is computed.

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from the American Medical Association, Center for Health Services Research and Development.

Table B-5

NUMBER OF PHYSICIANS (M.D.'S) ACTIVE IN PRIMARY PATIENT CARE AND PRIMARY-CARE-PHYSICIAN-TO-POPULATION RATIOS, BY TYPE OF PRACTICE: DECEMBER 31, SELECTED YEARS 1965-1978, AND ADJUSTED DATA FOR 1978-1980

Year	Primary care physicians 1/	Total population (thousands) 2/	Primary care physicians per 100,000 population	Type of primary care practice					
				General and family practice 3/		Internal medicine		Pediatrics	
				Number	Physicians per 100,000 population	Number	Physicians per 100,000 population	Number	Physicians per 100,000 population
1965	113,090	198,357	56.8	64,943	32.6	33,892	17.0	14,255	7.2
1970	117,761	209,096	56.3	57,948	27.7	41,872	20.0	17,941	8.6
1975	130,634	217,966	59.9	54,557	25.0	54,331	24.9	21,746	10.0
1976	135,881	219,648	61.9	55,479	25.3	57,911	26.4	22,491	10.2
1977	140,948	221,419	63.6	55,159	24.9	61,830	27.9	23,959	10.8
1978	143,383	223,274	64.2	56,197	25.2	62,641	28.0	24,545	11.0
1978 4/	154,370	223,274	69.1	58,740	26.3	66,910	30.0	28,720	12.8
1979 4,5/	157,480	225,099	70.0	58,980	26.2	68,780	30.6	29,720	13.2
1980 4,5/	166,640	227,911	73.1	61,620	27.0	73,220	32.1	31,800	14.0

1/ Includes physicians in Federal service; also includes physicians in U.S. Possessions.

2/ Total population includes civilians in U.S. Possessions.

3/ Family practice is included beginning in 1970.

4/ These numbers are adjusted to include most physicians whose address or activity status are unknown.

5/ Adjusted numbers for 1979 and 1980 are based on estimates.

SOURCE: Data for 1965 through 1978 (unadjusted) compiled by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from the American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues.

All adjusted data for 1978 through 1980 by HRA, BHPr, Division of Health Professions Analysis.

U.S. Bureau of the Census. Current Population Report P-25, Nos. 542, 603, 704, and 812.

Table B-6
NUMBER OF ACTIVE PHYSICIANS (M.D.'S) AND PHYSICIAN-TO-POPULATION RATIOS, BY GENERAL AND SPECIALTY PRACTICE: SELECTED YEARS, DECEMBER 31, 1965-1978 1,2/

Type of practice	1965 3/		1970		1975		1978	
	Number	Physicians per 100,000 population	Number	Physicians per 100,000 population	Number	Physicians per 100,000 population	Number	Physicians per 100,000 population
All active	277,575	139.9	310,845	148.7	340,280	156.1	375,811	168.3
General and family practice 4/	64,943	32.6	57,948	27.7	54,557	25.0	56,197	25.1
Medical specialities	61,435	31.0	77,214	36.9	95,087	43.6	109,743	49.2
Allergy	1,541	0.8	1,719	0.8	1,716	0.8	1,537	0.7
Cardiovascular diseases	4,311	2.2	6,476	3.1	6,933	3.2	8,506	3.8
Dermatology	3,407	1.7	4,003	1.9	4,661	2.1	5,105	2.3
Gastroenterology	1,344	0.7	2,010	1.0	2,381	1.1	3,314	1.5
Internal medicine	33,892	17.0	41,872	20.0	54,331	24.9	62,641	28.0
Pediatric allergy	270	0.1	391	0.2	446	0.2	437	0.2
Pediatric cardiology	311	0.2	487	0.2	538	0.2	588	0.3
Pediatrics	14,255	7.2	17,941	8.6	21,746	10.0	24,545	11.0
Pulmonary diseases	2,104	1.1	2,315	1.1	2,335	1.1	3,070	1.4
Surgical specialities	73,185	36.7	86,042	41.1	96,015	44.1	102,414	45.9
General surgery	25,643	12.9	29,761	14.2	31,562	14.5	32,059	14.4
Neurological surgery	2,041	1.0	2,578	1.2	2,926	1.3	3,098	1.4
Obstetrics and gynecology	16,379	8.2	18,876	9.0	21,731	10.0	23,963	10.7
Ophthalmology	8,380	4.2	9,927	4.7	11,129	5.1	11,933	5.3
Orthopedic surgery	7,557	3.8	9,620	4.6	11,379	5.2	12,657	5.7
Otolaryngology	4,851	2.4	5,409	2.6	5,745	2.6	6,117	2.7
Plastic surgery	1,167	0.6	1,600	0.8	2,236	1.0	2,624	1.2
Colon and rectal surgery	715	0.4	667	0.3	661	0.3	679	0.3
Thoracic surgery	1,473	0.7	1,809	0.9	1,979	0.9	2,042	1.0
Urology	4,979	2.5	5,795	2.8	6,667	3.1	7,242	3.2
Other specialities	78,012	39.1	89,641	42.8	94,621	43.4	107,457	48.1
Aerospace medicine	1,603	0.8	1,188	0.6	684	0.3	584	0.3
Anesthesiology	8,592	4.3	10,860	5.2	12,861	5.9	14,246	6.4
Child psychiatry	1,154	0.6	2,090	1.0	2,581	1.2	2,926	1.3
Neurology	2,198	1.1	3,074	1.5	4,131	1.9	4,923	2.2
Occupational medicine	2,801	1.4	2,713	1.3	2,355	1.1	2,351	1.0
Pathology 5/	8,233	4.1	10,483	5.0	11,910	5.5	12,854	5.8
Physical medicine and rehabilitation	1,162	0.6	1,479	0.7	1,664	0.8	1,900	0.8
Psychiatry	17,333	8.7	21,146	10.1	23,922	11.0	25,596	11.5
Public health 6/	3,988	2.0	3,833	1.8	3,454	1.6	3,096	1.4
Radiology 7/	9,686	4.9	13,360	6.4	16,240	7.5	18,407	8.2
Other and unspecified	21,262	10.7	19,415	9.3	14,819	6.8	20,574	9.2

1/ Includes physicians in Federal service; also includes physicians in U.S. Possessions.

2/ Ratios are based on total population plus civilian population in U.S. Possessions.

3/ Because of a change in the AMA classification procedure, 1965 data have been adjusted to be comparable to data for the later years.

4/ Family practice is included beginning in 1970.

5/ Includes forensic pathology.

6/ Includes general preventive medicine.

7/ Includes both diagnostic and therapeutic radiology.

SOURCE: American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues for 1970 and 1975 data. 1965 adjusted data are from the American Medical Association report Reclassification of Physicians, 1968.

Table B-7
ADJUSTED NUMBER OF ACTIVE PHYSICIANS (M.D.'S) AND PHYSICIAN-TO-POPULATION RATIOS, BY GENERAL AND SPECIALTY PRACTICE: DECEMBER 31, 1978, 1979, AND 1980 1,2,3/

Type of practice	1978		1979		1980	
	Number	Physicians per 100,000 population	Number	Physicians per 100,000 population	Number	Physicians per 100,000 population
All active	403,820	180.9	416,680	185.1	429,800	188.6
General and family practice	58,740	26.3	58,980	26.2	61,620	27.0
General practice	41,810	18.7	39,820	17.7	39,260	17.2
Family practice	16,930	7.6	19,160	8.5	22,360	9.8
Medical specialties	119,580	53.5	130,450	58.0	131,570	57.7
Internal medicine	66,910	30.0	68,780	30.6	73,220	32.1
Pediatrics	28,720	12.8	29,720	13.2	31,800	14.0
Other medical specialties 4/	23,950	10.7	31,950	14.2	26,550	11.6
Surgical specialties	109,070	48.9	109,260	48.5	113,130	49.6
General surgery	34,230	15.4	33,880	15.0	34,670	15.2
Obstetrics and gynecology	25,250	11.3	25,480	11.3	26,600	11.7
Ophthalmology	12,310	5.5	12,260	5.4	12,620	5.5
Orthopedic surgery	13,460	6.0	13,630	6.1	14,270	6.3
Other surgical specialties 5/	23,820	10.7	24,010	10.7	24,970	10.9
Other specialties	116,480	52.2	117,990	52.4	123,480	54.2
Anesthesiology	15,190	6.8	15,160	6.8	15,590	6.8
Pathology 6/	15,200	6.8	15,450	6.9	16,210	7.1
Psychiatry 7/	31,670	14.2	31,820	14.1	33,000	14.5
Radiology 8/	20,020	9.0	20,560	9.1	21,870	9.6
Other and unspecified 9/	34,400	15.4	35,000	15.5	36,810	16.2

1/ Numbers for all years are adjusted to include most physicians whose address or activity status are unknown. The adjusted numbers for 1979 and 1980 are based on estimates.

2/ Includes physicians in Federal service; also includes physicians in U.S. Possessions.

3/ Ratios are based on total population plus civilian population in U.S. Possessions.

4/ Includes allergy, cardiovascular diseases, dermatology, gastroenterology, pediatric allergy, pediatric cardiology, and pulmonary diseases.

5/ Includes neurological surgery, otolaryngology, plastic surgery, colon and rectal surgery, thoracic surgery, and urology.

6/ Includes forensic pathology.

7/ Includes child psychiatry.

8/ Includes both diagnostic and therapeutic radiology.

9/ Includes aerospace medicine, neurology, occupational medicine, physical medicine and rehabilitation, public health, general preventive medicine, other specialties, and unspecified.

SOURCE: Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

Table B-8
TOTAL PHYSICIANS (M.D'S) BY COUNTRY WHERE GRADUATED FROM MEDICAL SCHOOL:
SELECTED YEARS, DECEMBER 31, 1959-1979

Year	Total physicians 1/		Where graduated from medical school					
			United States		Canada		Other foreign	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1959	240,797	100.0	220,222	91.5	5,421	2.2	15,154	6.3
1963	275,140	100.0	238,571	86.7	5,644	2.1	30,925	11.2
1967	306,970	100.0	255,104	83.1	6,050	2.0	45,816	14.9
1970	334,028	100.0	270,637	81.0	6,174	1.9	57,217	17.1
1975	393,742	100.0	306,413	77.8	6,481	1.7	80,848	20.5
1976	409,446	100.0	317,153	77.5	6,670	1.6	85,623	20.9
1977	421,278	100.0	327,799	77.8	6,690	1.6	86,789	20.6
1978	437,486	100.0	340,035	77.7	6,100	1.4	91,351	20.9
1979 2/	450,800	100.0	350,300	77.7	5,900	1.3	94,600	21.0

1/ Includes physicians in Federal service; also includes physicians in U.S. Possessions.

2/ All counts of physicians in 1979 are estimated.

SOURCE: Data for 1959 through 1977 from American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1977. Data for 1978 are from the subsequent edition of this same AMA report.

Data for 1979 from Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

Table B-9
ALL ACTIVE PHYSICIANS (M.D.'S) AND NUMBER AND PERCENT WHO ARE FOREIGN MEDICAL GRADUATES, BY TYPE OF PRACTICE: DECEMBER 31, 1970, 1975, AND 1978 1/

Type of practice	1970			1975			1978		
	All active physicians	Active FMG's 2/	Percent FMG's of all active physicians	All active physicians	Active FMG's 2/	Percent FMG's of all active physicians	All active physicians	Active FMG's 2/	Percent FMG's of all active physicians
All active	310,845	54,142	17.4	340,280	66,697	19.6	375,811	75,422	20.1
General and family practice	57,948	6,742	11.6	54,557	7,757	14.2	56,197	8,722	15.5
Specialty groups	252,897	47,400	18.7	285,723	58,940	20.6	319,614	66,700	20.9
Medical specialties	77,214	12,999	16.8	95,087	18,841	19.8	109,743	21,362	19.5
Surgical specialties	86,042	12,471	14.5	96,015	16,194	16.9	102,414	17,598	17.2
Other specialties	89,641	21,930	24.5	94,621	23,905	25.3	107,457	27,740	25.8

1/ Includes physicians in Federal service; also includes physicians in U.S. Possessions.

2/ Excludes graduates of Canadian medical schools.

SOURCE: Compiled by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues.

Table B-10
ALL ACTIVE PHYSICIANS (M.D.'S), AND NUMBER AND PERCENT WHO ARE FOREIGN MEDICAL GRADUATES, BY GENERAL AND SPECIALTY PRACTICE: DECEMBER 31, 1978 1/

Type of practice	All active physicians	Active FMG's 2/	Percent FMG's of all active physicians
All active	375,811	75,422	20.1
General and family practice	56,197	8,722	15.5
Medical specialties	109,743	21,362	19.5
Allergy	1,537	190	12.4
Cardiovascular diseases	8,506	1,934	22.7
Dermatology	5,105	442	8.7
Gastroenterology	3,314	645	19.5
Internal medicine	62,641	11,518	18.4
Pediatric allergy	437	70	16.0
Pediatric cardiology	588	174	29.6
Pediatrics	24,545	5,650	23.0
Pulmonary diseases	3,070	739	24.1
Surgical specialties	102,414	17,598	17.2
General surgery	32,059	6,692	20.9
Neurological surgery	3,098	537	17.3
Obstetrics and gynecology	23,963	4,803	20.0
Ophthalmology	11,933	1,062	8.9
Orthopedic surgery	12,657	1,352	10.7
Otolaryngology	6,117	885	14.5
Plastic surgery	2,624	413	15.7
Rectal and colon surgery	679	109	16.1
Thoracic surgery	2,042	454	22.2
Urology	7,242	1,291	17.8
Other specialties	107,457	27,740	25.8
Aerospace medicine	584	46	7.9
Anesthesiology	14,246	5,390	37.8
Child psychiatry	2,926	692	23.7
Neurology	4,923	1,060	21.5
Occupational medicine	2,351	220	9.4
Pathology 3/	12,854	4,012	31.2
Physical medicine and rehabilitation	1,900	845	44.5
Psychiatry	25,596	6,438	25.2
Public health 4/	3,096	365	11.8
Radiology 5/	18,407	3,595	19.5
Other and unspecified	20,574	5,077	24.7

1/ Includes physicians in Federal service; also includes physicians in U.S. Possessions.

2/ Excludes graduates of Canadian medical schools.

3/ Includes forensic pathology.

4/ Includes general preventive medicine.

5/ Includes both diagnostic and therapeutic radiology.

SOURCE: Compiled by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978.

Table B-11
NUMBER AND PERCENT DISTRIBUTION OF ALL ACTIVE PHYSICIANS (M.D.'S), AND NUMBER AND PERCENT WHO ARE FOREIGN MEDICAL GRADUATES, BY ACTIVITY AND PLACE OF PRACTICE: DECEMBER 31, 1978 1/

Activity and place of practice	All active physicians		Graduates of U.S. medical schools 2/		Graduates of foreign medical schools		Percent FMG's of all active physicians
	Number	Percent distribution	Number	Percent distribution	Number	Percent distribution	
All active	375,811	100.0	300,389	100.0	75,422	100.0	20.1
Patient care	342,714	91.2	273,946	91.2	68,768	91.2	20.1
Office based	239,866	63.8	197,754	65.8	42,112	55.8	17.6
Hospital based	102,848	27.4	76,192	25.4	26,656	35.3	25.9
Residents (all years)	60,610	16.1	48,669	16.2	11,941	15.8	19.7
Full-time staff	42,238	11.2	27,523	9.2	14,715	19.5	34.8
Other professional activities	33,097	8.8	26,443	8.8	6,654	8.8	20.1
Medical teaching	7,025	1.9	5,663	1.9	1,362	1.8	19.4
Administration	11,858	3.2	10,400	3.5	1,458	1.9	12.3
Research	11,437	3.0	8,180	2.7	3,257	4.3	28.5
Other activity	2,777	0.7	2,200	0.7	577	0.8	20.8

1/ Includes physicians in Federal service; also includes physicians in U.S. Possessions.

2/ Includes graduates of Canadian medical schools.

SOURCE: Compiled by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978.

Table B-12
NUMBER AND PERCENT DISTRIBUTION OF ALL ACTIVE PHYSICIANS (M.D.'S), AND NUMBER AND PERCENT WHO ARE FEMALE, BY ACTIVITY AND SPECIALTY GROUP: DECEMBER 31, 1978 1/

Activity and specialty group	All active physicians		Male		Female		Percent female of all active physicians
	Number	Percent distribution	Number	Percent distribution	Number	Percent distribution	
All active	375,811	100.0	340,333	100.0	35,478	100.0	9.4
Patient care	342,714	91.2	310,822	91.3	31,892	89.9	9.3
General and family practice	54,893	14.6	51,237	15.0	3,656	10.3	6.7
Medical specialties	96,940	25.8	84,961	25.0	11,979	33.8	12.4
Surgical specialties	98,567	26.2	94,561	27.8	4,006	11.3	4.1
Other specialties	92,314	24.6	80,063	23.5	12,251	34.5	13.3
Other professional activities	33,097	8.8	29,511	8.7	3,586	10.1	10.8
Medical teaching	7,025	1.9	6,125	1.8	900	2.5	12.8
Administration	11,858	3.2	10,745	3.2	1,113	3.1	9.4
Research	11,437	3.0	10,221	3.0	1,216	3.4	10.6
Other activities	2,777	0.7	2,420	0.7	357	1.0	12.9

1/ Includes physicians in Federal service; also includes physicians in U.S. Possessions.

SOURCE: Compiled by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978.

Table B-13
EXTENT OF PHYSICIAN (M.D.) PROFESSIONAL ACTIVITY IN AVERAGE NUMBER OF PATIENT VISITS, HOURS, AND WEEKS, BY TYPE OF PRACTICE: 1970 AND 1979

Type of practice	Average number of patient visits per week		Average number of hours per week in direct patient care		Average number of hours per week of physician practice		Average number of weeks of practice per year	
	1970	1979	1970	1979	1970	1979	1970	1978 1/
All practices 2/	132.5	122.7	44.7	44.9	51.4	49.7	47.5	47.4
General practice	172.9	157.7	47.7	45.0	52.1	48.2	48.1	47.8
Internal medicine	122.6	117.5	45.5	47.2	51.6	51.8	47.2	47.2
Surgery	122.2	115.9	47.2	46.9	53.2	52.7	47.4	47.0
Pediatrics	145.2	138.9	45.9	43.5	51.7	48.3	48.1	48.2
Obstetrics/gynecology	132.8	126.0	49.9	47.8	55.1	52.2	48.0	47.9
Psychiatry	54.6	57.2	37.3	39.6	47.1	45.6	46.2	47.7

1/ Data for 1979 are not available.

2/ Included are physicians whose specialties were classified as Radiology, Anesthesiology, "Other," and "Not Specified."

SOURCE: American Medical Association, Center for Health Services Research and Development. Profile of Medical Practice, 1980.

AVERAGE NUMBER OF PATIENT VISITS PER WEEK AND OF HOURS OF PHYSICIAN (M.D.) PRACTICE PER WEEK, IN METROPOLITAN AREAS AND NON-METROPOLITAN COUNTIES, BY TYPE OF PRACTICE: 1979

Type of practice	Average number of patient visits per week				Average number of hours per week of physician practice			
		Metropolitan areas				Metropolitan areas		
	All areas	1,000,000 or more	Under 1,000,000	Non-metropolitan counties	All areas	1,000,000 or more	Under 1,000,000	Non-metropolitan counties
All practices 1/	122.7	108.7	126.9	153.3	49.7	48.3	50.9	51.6
General practice	157.7	134.6	159.7	181.9	48.2	44.4	50.3	50.8
Internal medicine	117.5	103.9	126.4	154.0	51.8	50.0	53.8	54.3
Surgery	115.9	107.4	117.0	137.2	52.7	52.0	52.5	54.9
Pediatrics	138.9	122.4	157.9	146.8	48.3	46.1	51.1	49.7
Obstetrics/gynecology	126.0	120.7	129.7	139.2	52.2	51.4	52.1	56.4
Psychiatry	57.2	52.6	57.5	106.6	45.6	46.0	44.5	45.5

1/ Included are physicians whose specialties were classified as Radiology, Anesthesiology, and "Other."

SOURCE: American Medical Association, Center for Health Services Research and Development. Profile of Medical Practice, 1980.

Table B-15
AVERAGE PATIENT WAITING TIME FOR PHYSICIAN (M.D.) APPOINTMENT AND WAITING TIME IN PHYSICIAN'S OFFICE, BY TYPE OF PRACTICE: 1979

Type of practice	Average waiting time for appointment (in days)				Average waiting time in physician's office (in minutes)
	Routine visit		Specific complaint		
	New patient	Established patient	New patient	Established patient	
All practices 1/	9.2	5.8	3.9	1.9	20.9
General practice	4.5	2.7	2.0	1.0	24.6
Internal medicine	12.2	5.4	6.4	1.9	20.8
Surgery	10.5	7.7	3.9	2.8	22.3
Pediatrics	10.3	8.6	1.6	1.1	22.3
Obstetrics/gynecology	14.4	13.1	5.0	2.4	24.4
Psychiatry	8.2	3.6	5.1	2.4	6.7

1/ Included are physicians whose specialties were classified as Radiology, Anesthesiology, and "Other."

SOURCE: American Medical Association, Center for Health Services Research and Development. Profile of Medical Practice, 1980.

Table B-16
AVERAGE PATIENT WAITING TIME FOR PHYSICIAN (M.D.) APPOINTMENT AND WAITING TIME IN PHYSICIAN'S OFFICE, BY METROPOLITAN AREAS AND NON-METROPOLITAN COUNTIES: 1979

Geographic area	Average waiting time for appointment (in days)				Average waiting time in physician's office (in minutes)
	Routine visit		Specific complaint		
	New patient	Established patient	New patient	Established patient	
All areas	9.2	5.8	3.9	1.9	20.9
Metropolitan areas:					
1,000,000 or more	7.8	5.1	3.4	1.9	19.3
Under 1,000,000	11.1	6.9	4.9	2.1	21.7
Non-metropolitan counties	9.2	5.8	3.3	1.6	23.7

SOURCE: American Medical Association, Center for Health Services Research and Development. Profile of Medical Practice, 1980.

Table B-17
AVERAGE NET INCOME OF PHYSICIANS (M.D.'S) FROM MEDICAL PRACTICE, ACTUAL AND ADJUSTED FOR INFLATION, BY TYPE OF PRACTICE: 1970, 1975, AND 1979

Type of practice	Average net income						Percent change 1970 to 1979	
	1970		1975		1979 1/			
	Actual	Adjusted 2/	Actual	Adjusted 2/	Actual	Adjusted 2/	Actual	Adjusted
All practices 3/	$41,800	$35,900	$56,400	$35,000	$68,600	$31,600	+64.1	-12.0
General practice	33,900	29,100	45,400	28,200	55,500	25,500	+63.7	-12.4
Internal medicine	40,300	34,700	57,000	35,400	66,800	30,700	+65.8	-11.5
Surgery	50,700	43,600	68,200	42,300	86,600	39,800	+70.8	-8.7
Pediatrics	34,800	29,900	44,300	27,500	54,400	25,000	+56.3	-16.4
Obstetrics/gynecology	47,100	40,500	63,300	39,300	73,600	33,900	+56.3	-16.3
Psychiatry	39,900	34,300	44,800	27,800	53,200	24,500	+33.3	-28.6

1/ Projected by respondents.

2/ Consumer price index for all items (base 1967 = 100) are as follows: for 1970, 116.3; for 1975, 161.2; for 1979, 217.4; data are annual averages.

3/ Included are net incomes of physicians whose specialties were classified as Radiology, Anesthesiology, and "Other".

SOURCE: Actual income from American Medical Association, Center for Health Services Research and Development. Profile of Medical Practice, 1980.

Adjusted income and percent change from Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

Consumer price indices from U.S. Department of Labor, Bureau of Labor Statistics.

C. Osteopathic Physicians (D.O.'s)

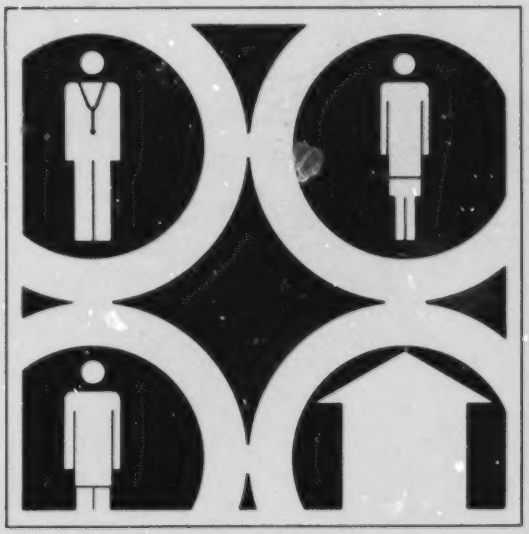

Table C-1
TOTAL AND ACTIVE OSTEOPATHIC PHYSICIANS (D.O.'S) AND OSTEOPATHIC PHYSICIAN-TO-POPULATION RATIOS: SELECTED YEARS, DECEMBER 31, 1950-1980

Year	Number of osteopathic physicians 1/		Total population (thousands)	Osteopathic physicians per 100,000 population		Active non-Federal osteopathic physicians	Civilian population (thousands)	Active non-Federal osteopathic physicians per 100,000 civilian population
	Total	Active		Total	Active			
1950	12,700	10,900	153,622	8.3	7.1	9,900	151,238	6.5
1955	13,500	11,600	167,513	8.1	6.9	10,500	164,597	6.4
1960	14,350	12,160	182,287	7.9	6.7	11,030	179,742	6.1
1965	13,030	11,100	195,539	6.7	5.7	10,000	192,638	5.2
1970	14,030	12,340	206,076	6.8	6.0	11,650	203,109	5.7
1975	15,300	14,060	214,446	7.1	6.6	13,370	212,308	6.3
1976	15,570	14,660	216,022	7.2	6.8	13,980	213,889	6.5
1977	16,260	15,360	217,739	7.5	7.1	14,400	215,620	6.7
1978	17,040	16,100	219,484	7.8	7.4	15,100	217,389	6.9
1979	17,860	16,870	221,195	8.1	7.6	15,710	219,100	7.2
1980	18,820	17,670	223,870	8.4	7.9	16,510	221,725	7.4

1/ Includes osteopathic physicians in Federal service.

SOURCE: Data for 1950 through 1965 from U.S. Department of Health, Education, and Welfare, National Center for Health Statistics. Health Resources Statistics 1965, PHS Publication No. 1509, 1966, and Health Resources Statistics 1976-77, DHEW Publication No. (PHS) 79-1509, 1979.

Data for 1970 through 1980 estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

U.S. Bureau of the Census. Current Population Report P-25, Nos. 438, 542, and 812.

Table C-2
NUMBER AND PERCENT DISTRIBUTION OF ACTIVE OSTEOPATHIC PHYSICIANS (D.O.'S), BY OCCUPATIONAL STATUS: DECEMBER 31, 1980

Occupational status	Active osteopathic physicians	
	Number	Percent distribution
All active	17,670	100.0
Patient care	14,210	80.4
Office-based	12,230	69.2
Hospital-based	410	2.3
Government institutions	1,220	6.9
Academic and religious institutions	350	2.0
Advanced training	2,010	11.4
Interns	810	4.6
Residents	880	5.0
Other	320	1.8
Not in patient care or in training	1,450	8.2

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from the American Osteopathic Association, Task Force on Graduate Osteopathic Medical Education.

Table C-3
NUMBER OF ACTIVE NON-FEDERAL OSTEOPATHIC PHYSICIANS (D.O.'S) AND OSTEOPATHIC PHYSICIAN-TO-POPULATION RATIOS, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1980

Geographic area	1970		1975		1980	
	Active non-Federal osteopathic physicians	Active non-Federal osteopathic physicians per 100,000 civilian population	Active non-Federal osteopathic physicians	Active non-Federal osteopathic physicians per 100,000 civilian population	Active non-Federal osteopathic physicians	Active non-Federal osteopathic physicians per 100,000 civilian population
UNITED STATES	11,650	5.7	13,370	6.3	16,510	7.5
NORTHEAST	3,119	6.3	3,660	7.4	4,342	8.7
New England	498	4.2	490	4.0	501	4.0
Connecticut	42	1.4	38	1.2	29	0.9
Maine	184	18.5	179	14.1	209	18.8
Massachusetts	144	2.5	152	2.6	147	2.4
New Hampshire	17	2.3	14	1.7	17	1.9
Rhode Island	81	8.5	77	8.2	76	7.9
Vermont	30	6.7	30	6.4	23	4.7
Middle Atlantic	2,621	7.0	3,170	8.5	3,841	10.3
New Jersey	701	9.7	860	11.7	1,058	14.1
New York	459	2.5	556	3.1	534	3.0
Pennsylvania	1,461	12.4	1,754	14.8	2,249	18.9
NORTH CENTRAL	5,294	9.3	5,927	10.3	7,304	12.5
East North Central	3,678	9.1	4,197	10.3	5,321	12.8
Illinois	289	2.6	302	2.7	479	4.2
Indiana	154	3.0	170	3.2	218	4.0
Michigan	2,025	22.8	2,360	25.9	2,871	30.9
Ohio	1,044	9.8	1,193	11.1	1,531	14.2
Wisconsin	166	3.7	172	3.8	222	4.6
West North Central	1,616	9.9	1,730	10.4	1,983	11.7
Iowa	358	12.7	384	13.6	478	16.5
Kansas	163	7.3	183	8.1	240	10.4
Minnesota	48	1.3	54	1.4	54	1.3
Missouri	991	21.1	1,053	22.2	1,167	24.1
Nebraska	20	1.3	27	1.8	15	0.9
North Dakota	7	1.1	6	0.9	7	1.1
South Dakota	29	4.4	23	3.4	22	3.2
SOUTH	2,061	3.3	2,452	3.6	3,118	4.3
South Atlantic	836	2.7	1,057	3.2	1,380	3.8
Delaware	26	4.7	43	7.5	58	9.7
District of Columbia	5	0.7	9	1.3	11	1.6
Florida	582	8.5	736	9.1	961	10.1
Georgia	67	1.5	111	2.3	130	2.5
Maryland	19	0.5	22	0.5	38	0.9
North Carolina	21	0.4	21	0.4	30	0.5
South Carolina	5	0.2	6	0.2	9	0.3
Virginia	32	0.7	35	0.7	46	0.9
West Virginia	79	4.5	74	4.1	97	5.2
East South Central	87	0.7	98	0.7	125	0.9
Alabama	1	*	5	0.1	12	0.3
Kentucky	31	1.0	36	1.1	42	1.2
Mississippi	—	—	2	0.1	11	0.4
Tennessee	55	1.4	55	1.3	60	1.4
West South Central	1,138	5.9	1,297	6.3	1,613	7.3
Arkansas	12	0.6	11	0.5	17	0.8
Louisiana	11	0.3	13	0.4	15	0.4
Oklahoma	374	14.5	431	15.9	561	19.8
Texas	741	6.6	842	6.9	1,020	7.8
WEST	1,176	3.4	1,331	3.6	1,746	4.3
Mountain	740	8.9	831	8.7	931	8.7
Arizona	318	17.7	363	16.9	428	16.8
Colorado	242	10.9	255	10.2	283	10.1
Idaho	25	3.5	20	2.5	23	2.6
Montana	20	2.9	19	2.6	20	2.5
Nevada	16	3.2	26	4.5	33	5.0
New Mexico	99	9.7	124	11.1	115	9.3
Utah	14	1.3	17	1.4	17	1.3
Wyoming	6	1.8	7	2.1	12	3.0
Pacific	436	1.6	500	1.8	815	2.8
Alaska	1	0.3	3	0.9	9	2.3
California	119	0.6	118	0.6	347	1.6
Hawaii	19	2.5	20	2.4	30	3.4
Oregon	155	7.4	185	8.2	214	8.8
Washington	142	4.2	174	5.0	215	5.9

* Ratio is less than 0.05

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from American Osteopathic Association.

D. Dentists

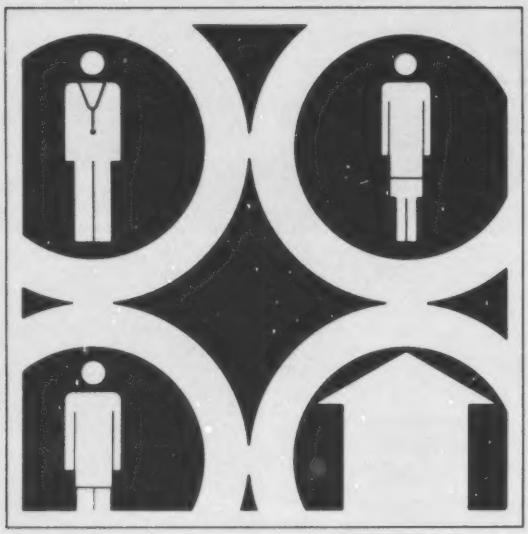

Table D-1
TOTAL AND ACTIVE DENTISTS AND DENTIST-TO-POPULATION RATIOS: SELECTED YEARS, DECEMBER 31, 1950-1980

Year	Number of dentists 1/		Total population (thousands)	Dentists per 100,000 population		Active civilian dentists 2/	Civilian population (thousands)	Active civilian dentists per 100,000 civilian population
	Total	Active		Total	Active			
1950	89,730	79,190	153,622	58.4	51.5	75,310	151,238	49.8
1955	97,960	84,370	167,513	58.5	50.4	78,270	164,597	47.6
1960	105,200	90,120	182,287	57.7	49.4	84,500	179,742	47.0
1965	112,450	95,990	195,539	57.5	49.0	89,640	192,633	46.5
1970	116,250	102,220	206,076	56.4	49.6	95,680	203,109	47.1
1975	126,590	112,020	214,446	59.0	52.2	106,740	212,308	50.3
1976	129,660	115,000	216,022	60.0	53.2	110,000	213,889	51.4
1977	132,670	117,890	217,739	60.9	54.1	112,720	215,620	52.0
1978	135,500	120,620	219,484	61.7	55.0	115,450	217,389	53.1
1979	138,450	123,500	221,195	62.6	55.8	118,330	219,100	54.0
1980	141,280	126,240	223,870	63.1	56.4	121,240	221,725	54.7

1/ Includes dentists in Federal service.

2/ Dentists in the Veterans Administration and U.S. Public Health Service are counted as civilian dentists.

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from the American Dental Association, Bureau of Economic and Behavioral Research.

U.S. Bureau of the Census. Current Population Report P-25, Nos. 438, 542, and 812.

Table D-2
NUMBER OF ACTIVE CIVILIAN DENTISTS AND DENTIST-TO-POPULATION RATIOS, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1980

Geographic area	1970		1975		1980	
	Active civilian dentists	Active civilian dentists per 100,000 civilian population	Active civilian dentists	Active civilian dentists per 100,000 civilian population	Active civilian dentists	Active civilian dentists per 100,000 civilian population
UNITED STATES	95,680	47.4	106,740	50.5	121,240	54.9
NORTHEAST	28,601	58.9	31,983	64.8	32,500	65.2
New England	6,117	51.9	7,147	58.8	8,171	65.1
Connecticut	1,835	61.0	2,061	66.9	2,290	73.1
Maine	350	36.2	386	36.9	505	45.4
Massachusetts	3,024	52.9	3,683	63.5	4,079	68.2
New Hampshire	311	41.5	379	46.3	482	55.5
Rhode Island	425	46.9	442	47.5	522	54.4
Vermont	172	38.5	196	41.3	293	59.4
Middle Atlantic	22,484	61.1	24,836	66.8	24,365	65.3
New Jersey	4,056	57.3	4,308	58.8	4,860	64.9
New York	12,397	68.9	13,793	76.5	12,841	71.6
Pennsylvania	6,031	51.6	6,735	57.0	6,664	55.9
NORTH CENTRAL	26,129	46.3	28,146	48.9	31,036	53.1
East North Central	18,423	45.9	19,910	48.7	21,856	52.7
Illinois	5,503	50.0	5,870	52.9	6,214	55.2
Indiana	2,045	39.2	2,180	40.8	2,370	44.0
Michigan	4,285	48.1	4,520	49.6	5,085	54.7
Ohio	4,405	41.5	4,929	45.9	5,337	49.6
Wisconsin	2,185	49.6	2,411	52.5	2,850	59.8
West North Central	7,706	47.4	8,236	48.4	9,180	54.0
Iowa	1,306	46.7	1,364	47.7	1,497	51.6
Kansas	924	41.6	1,038	46.2	1,095	47.6
Minnesota	2,222	58.1	2,379	60.4	2,588	64.1
Missouri	1,983	42.3	2,079	43.6	2,404	49.6
Nebraska	809	55.0	876	56.8	985	61.9
North Dakota	232	38.0	249	39.6	302	48.9
South Dakota	230	34.8	251	36.9	309	45.0
SOUTH	22,025	35.3	25,255	37.5	32,095	44.4
South Atlantic	10,865	35.8	12,840	38.6	16,634	46.0
Delaware	213	38.6	239	41.8	261	43.7
District of Columbia	655	88.3	611	86.7	562	82.8
Florida	2,564	38.2	3,230	38.8	4,578	48.0
Georgia	1,351	29.4	1,670	34.1	2,142	40.7
Maryland	1,586	40.3	1,952	47.9	2,500	57.8
North Carolina	1,484	29.8	1,675	31.4	2,203	38.6
South Carolina	648	25.4	806	29.3	1,086	36.6
Virginia	1,770	39.4	2,027	42.1	2,549	49.0
West Virginia	594	34.0	630	35.1	753	40.7
East South Central	4,175	32.6	4,654	34.7	5,914	42.1
Alabama	1,009	29.4	1,096	30.6	1,380	36.7
Kentucky	1,129	35.2	1,263	37.7	1,584	44.9
Mississippi	608	27.9	613	26.4	786	32.6
Tennessee	1,429	36.0	1,682	40.5	2,164	49.7
West South Central	6,985	36.2	7,761	37.6	9,547	43.3
Arkansas	597	31.4	656	31.5	793	35.7
Louisiana	1,256	34.8	1,470	39.1	1,669	42.7
Oklahoma	932	36.6	1,031	38.0	1,237	43.7
Texas	4,200	37.4	4,604	38.1	5,848	44.7
WEST	18,925	54.9	21,356	57.3	25,573	63.7
Mountain	3,780	45.5	4,273	44.6	5,952	56.0
Arizona	699	38.1	826	37.2	1,212	47.5
Colorado	1,136	51.9	1,270	50.4	1,743	62.5
Idaho	325	44.9	352	43.2	476	53.5
Montana	311	44.3	349	47.3	467	59.3
Nevada	209	41.4	256	43.8	353	54.0
New Mexico	364	36.4	364	32.2	558	45.1
Utah	582	54.8	683	57.0	917	69.5
Wyoming	154	46.2	173	47.8	226	55.8
Pacific	15,145	57.9	17,083	61.6	19,621	66.5
Alaska	87	28.1	125	38.9	214	54.9
California	11,310	57.4	12,783	61.4	14,346	64.7
Hawaii	458	63.8	485	60.0	599	67.6
Oregon	1,376	65.2	1,463	63.4	1,779	72.9
Washington	1,914	57.0	2,227	64.6	2,683	74.2

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from the American Dental Association, Bureau of Economic and Behavioral Research.

Table D-3
RATIO OF ACTIVE CIVILIAN DENTISTS TO POPULATION IN METROPOLITAN AREAS AND NON-METROPOLITAN COUNTIES, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1979

Geographic area	Active civilian dentists per 100,000 civilian population						
		Metropolitan areas, by population			Non-metropolitan counties, by size of central city		
	All areas	Total	1,000,000 or more	Under 1,000,000	Total	10,000 or more	Under 10,000
UNITED STATES	54.2	60.4	65.7	53.9	37.4	44.1	30.9
NORTHEAST	66.3	69.9	76.2	59.8	46.2	47.4	43.3
New England	66.3	70.2	80.8	65.0	50.7	50.3	51.6
Connecticut	72.6	74.9	*	74.9	39.6	39.6	*
Maine	45.3	61.9	*	61.9	38.9	39.8	37.6
Massachusetts	71.2	70.9	80.8	56.2	79.3	70.1	83.1
New Hampshire	53.4	59.9	*	59.9	50.6	49.9	55.0
Rhode Island	55.8	55.7	*	55.7	56.1	56.1	*
Vermont	57.5	*	*	*	57.5	65.8	47.5
Middle Atlantic	66.3	69.7	75.6	56.2	43.9	45.9	38.7
New Jersey	65.9	67.5	74.3	58.4	48.4	49.2	46.8
New York	73.9	77.4	82.5	58.5	47.0	49.5	40.6
Pennsylvania	55.1	58.8	62.7	52.0	39.9	42.1	34.5
NORTH CENTRAL	51.7	56.6	60.6	50.8	40.5	46.9	35.0
East North Central	51.5	55.4	59.9	48.8	38.5	42.5	33.9
Illinois	54.3	58.5	60.7	47.4	36.4	42.5	30.9
Indiana	42.7	47.1	57.9	41.9	33.3	38.9	26.9
Michigan	53.3	55.7	55.5	56.0	42.7	52.8	36.0
Ohio	48.6	52.4	59.9	45.4	33.5	36.3	25.0
Wisconsin	58.1	65.0	70.1	59.4	47.7	50.3	45.5
West North Central	52.2	61.1	63.5	57.6	42.7	53.9	36.0
Iowa	49.8	52.8	*	52.8	48.1	66.5	38.7
Kansas	45.5	52.5	64.2	44.7	39.5	45.7	32.2
Minnesota	61.7	69.5	70.5	65.8	47.6	35.5	43.3
Missouri	48.3	56.9	58.0	49.8	33.4	46.5	27.4
Nebraska	60.7	75.6	*	75.6	48.7	56.6	44.5
North Dakota	46.9	62.1	*	62.1	42.3	53.9	34.6
South Dakota	42.9	50.3	*	50.3	41.7	56.4	33.6
SOUTH	43.5	51.4	55.5	49.1	29.3	36.6	23.7
South Atlantic	46.6	54.3	59.5	50.3	31.6	39.0	25.3
Delaware	45.6	51.7	*	51.7	32.4	32.4	*
District of Columbia	87.2	87.2	87.2	*	*	*	*
Florida	49.6	52.0	52.1	52.0	34.5	43.5	24.4
Georgia	41.8	54.0	54.7	52.9	25.5	34.6	18.7
Maryland	59.4	60.9	61.6	23.5	50.8	62.3	32.5
North Carolina	38.3	48.9	*	48.9	29.7	33.3	26.2
South Carolina	36.0	46.1	*	46.1	26.7	28.3	25.2
Virginia	48.7	55.8	61.5	53.3	35.2	43.8	30.3
West Virginia	38.9	45.2	*	45.2	35.4	54.9	25.4
East South Central	40.2	52.2	41.3	52.6	27.3	36.7	21.5
Alabama	35.2	43.4	*	43.4	21.7	29.0	16.2
Kentucky	42.3	57.5	41.3	60.6	29.8	45.4	23.9
Mississippi	31.7	46.8	*	46.8	26.1	34.1	19.0
Tennessee	47.6	58.2	*	58.2	30.0	40.4	24.5
West South Central	40.9	46.7	49.3	45.0	27.5	32.5	23.8
Arkansas	33.3	41.9	*	41.9	27.8	33.1	24.7
Louisiana	39.7	47.9	53.5	43.2	25.6	28.8	22.2
Oklahoma	41.5	49.9	*	49.9	30.9	38.8	23.7
Texas	42.4	46.3	48.0	44.5	27.3	32.2	24.4
WEST	61.5	65.1	67.7	60.5	47.3	51.3	40.4
Mountain	54.2	61.2	65.1	59.7	43.3	49.4	37.1
Arizona	48.7	53.5	*	53.5	34.8	37.8	30.5
Colorado	61.3	64.8	65.1	64.1	46.3	52.0	44.4
Idaho	35.2	79.8	*	79.8	30.1	63.9	36.6
Montana	57.0	68.4	*	68.4	53.4	69.8	40.6
Nevada	49.1	52.9	*	52.9	32.5	51.9	26.3
New Mexico	41.1	56.1	*	56.1	33.5	36.9	23.1
Utah	63.9	67.8	*	67.8	49.5	66.1	42.8
Wyoming	48.9	*	*	*	48.9	54.3	43.3
Pacific	64.0	66.0	67.9	60.7	50.9	52.3	46.5
Alaska 1/	33.9	—	—	—	—	—	—
California	62.9	63.9	65.2	58.6	50.8	50.7	51.4
Hawaii	67.7	71.1	*	71.1	53.9	53.9	*
Oregon	68.8	80.4	88.6	64.0	51.8	54.7	43.1
Washington	67.5	74.7	82.6	62.5	49.4	52.2	42.6

* There is no area in this State with the count of population indicated in the column heading.

1/ Alaska is not divided into counties and therefore only the ratio for the entire State is computed.

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from the American Dental Association, Bureau of Economic and Behavioral Research.

Table D-4
NUMBER OF ACTIVE DENTISTS AND DENTIST-TO-POPULATION RATIOS, BY GENERAL AND SPECIALTY PRACTICE: DECEMBER 31, 1970, 1975, AND 1980 1,2/

Type of practice	1970		1975		1980	
	Number	Dentists per 100,000 population	Number	Dentists per 100,000 population	Number	Dentists per 100,000 population
All active dentists	102,220	49.6	112,020	52.2	126,240	56.4
General practice	92,898	45.1	98,892	46.1	109,080	48.7
All specialties	9,322	4.5	13,128	6.1	17,160	7.7
Orthodontics	3,901	1.9	5,232	2.4	6,563	2.9
Oral surgery	2,189	1.1	2,963	1.4	3,960	1.8
Periodontics	932	0.5	1,587	0.7	2,242	1.0
Pedodontics	1,076	0.5	1,569	0.7	2,063	0.9
Endodontics	457	0.2	815	0.4	1,174	0.5
Prosthodontics	593	0.3	771	0.4	949	0.4
Oral pathology	86	3/	92	3/	99	0.1
Public health dentistry	88	3/	99	0.1	110	0.1

1/ Includes dentists in Federal service.

2/ All ratios are based on total population.

3/ Ratio is less than 0.05 per 100,000 population.

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on total specialist counts from the American Dental Association, Bureau of Economic and Behavioral Research.

Table D-5
PRIMARY TYPE OF DENTAL EMPLOYMENT OF ACTIVE DENTISTS, BY SEX: DECEMBER 31, 1980

Primary type of dental employment	All active dentists		Male		Female	
	Number	Percent distribution	Number	Percent distribution	Number	Percent distribution
All active	126,240	100.0	122,740	100.0	3,500	100.0
Practicing dentist (30 or more hours/week)	97,220	77.0	95,450	77.8	1,770	50.6
Practicing dentist (less than 30 hours/week)	12,160	9.6	11,540	9.4	620	17.7
On faculty or staff of dental school	3,440	2.7	3,200	2.6	240	6.9
Armed Forces dentist	5,000	4.0	4,880	4.0	120	3.4
Other Federal dentist	1,980	1.6	1,870	1.5	110	3.1
Dentist in State or local government	1,510	1.2	1,350	1.1	160	4.6
Hospital staff dentist	970	0.8	930	0.7	40	1.1
Intern/resident/student	3,570	2.8	3,160	2.6	410	11.7
Staff member of health or dental organization	390	0.3	360	0.3	30	0.9

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from the American Dental Association, Bureau of Economic and Behavioral Research.

Table D-6
NUMBER OF PATIENT VISITS PER WEEK OF INDEPENDENT DENTISTS PRACTICING ALONE, BY AGE GROUP: 1977

Age group	Number of visits per week	
	Average	Median
All ages	78.7	70.0
Under 30 years	59.5	50.3
30-34 years	71.4	62.6
35-39 years	95.7	82.4
40-44 years	92.5	84.6
45-49 years	90.1	79.8
50-54 years	79.4	70.3
55-59 years	75.3	74.5
60 years and over	61.1	50.2

SOURCE: American Dental Association, Bureau of Economic Research and Statistics. The 1977 Survey of Dental Practice.

Table D-7
AVERAGE INCOME OF INDEPENDENT DENTISTS, BY GENERAL AND SPECIALTY PRACTICE: SELECTED YEARS 1964-1978

Year	All dentists		General practitioners		Specialists	
	Average gross income	Average net income	Average gross income	Average net income	Average gross income	Average net income
1964	$36,352	$19,835	$34,278	$18,469	$53,595	$30,577
1967	46,391	24,740	43,627	23,328	62,828	36,146
1970	59,325	30,770	56,550	28,776	78,062	43,853
1972	71,814	35,698	68,232	32,826	88,525	49,070
1974	76,000	34,000	74,000	33,000	97,000	45,000
1976 1/	95,213	42,035	92,540	40,616	124,320	56,987
1978 1/	109,152	46,208	105,281	44,071	139,853	63,020

1/ These data are for solo dental practice, i.e., independent dentists practicing alone.

SOURCE: American Dental Association, Bureau of Economic Research and Statistics. The 1977 Survey of Dental Practice. Also prior reports of this series for earlier years. Also unpublished data for 1978.

E. Optometrists

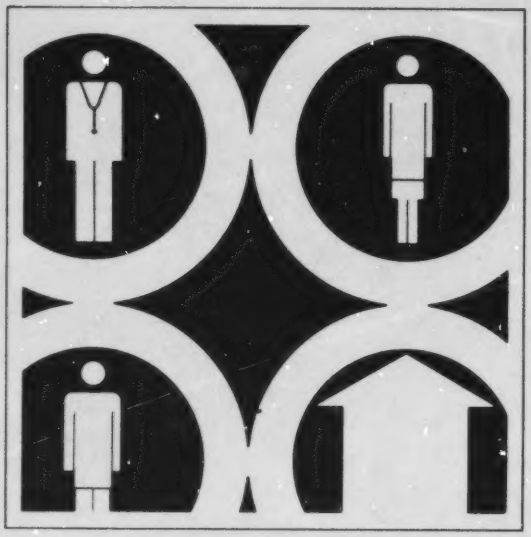

Table E-1
NUMBER OF ACTIVE OPTOMETRISTS AND OPTOMETRIST-TO-POPULATION RATIOS: SELECTED YEARS, DECEMBER 31, 1950-1980

Year	All active optometrists 1/	Total population (thousands)	Active optometrists per 100,000 total population
1950	14,750	153,622	9.6
1955	15,400	167,513	9.2
1960	16,080	182,287	8.8
1965	17,300	195,539	8.8
1970	18,400	206,076	8.9
1975	19,940	214,446	9.3
1976	20,350	216,022	9.4
1977	20,730	217,739	9.5
1978	21,130	219,484	9.6
1979	21,560	221,195	9.7
1980	22,330	223,870	10.0

1/ Includes optometrists in Federal service.

SOURCE: Data for 1950 through 1965 from U.S. Department of Health, Education, and Welfare, National Center for Health Statistics. Health Resources Statistics 1976-77, DHEW Publication No. (PHS)79-1509, 1979.

Data for 1970 through 1980 estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

U.S. Bureau of the Census. Current Population Report P-25, Nos. 438, 542, and 812.

Table E-2
NUMBER OF ACTIVE OPTOMETRISTS AND OPTOMETRIST-TO-POPULATION RATIOS, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1980

Geographic area	1970		1975		1980	
	Active optometrists	Active optometrists per 100,000 resident population	Active optometrists	Active optometrists per 100,000 resident population	Active optometrists	Active optometrists per 100,000 resident population
UNITED STATES	18,400	9.0	19,940	9.4	22,330	10.1
NORTHEAST	4,747	9.7	4,941	10.0	5,110	10.2
New England	1,333	11.2	1,429	11.7	1,458	11.6
Connecticut	259	8.6	275	8.9	315	10.1
Maine	116	11.1	128	12.1	111	10.0
Massachusetts	718	12.6	775	13.3	778	13.0
New Hampshire	70	9.4	75	9.2	63	7.3
Rhode Island	132	13.7	130	14.0	125	13.0
Vermont	38	8.9	46	9.7	66	13.4
Middle Atlantic	3,414	9.2	3,512	9.4	3,652	9.8
New Jersey	674	9.5	699	9.5	655	8.7
New York	1,595	8.8	1,646	9.1	1,760	9.8
Pennsylvania	1,145	9.6	1,167	9.8	1,237	10.4
NORTH CENTRAL	5,869	10.3	6,124	10.6	6,529	11.2
East North Central	4,200	10.4	4,411	10.8	4,677	11.3
Illinois	1,613	14.5	1,624	14.5	1,560	13.9
Indiana	510	9.8	557	10.5	646	12.0
Michigan	707	7.9	771	8.5	803	8.6
Ohio	942	8.8	1,008	9.4	1,158	10.8
Wisconsin	428	9.5	451	9.8	510	10.7
West North Central	1,669	10.2	1,713	10.3	1,852	10.9
Iowa	335	11.7	325	11.4	313	10.8
Kansas	229	10.7	256	11.2	334	14.5
Minnesota	353	9.2	374	9.5	390	9.7
Missouri	431	8.9	437	9.2	453	9.4
Nebraska	155	10.1	154	10.0	181	11.4
North Dakota	72	11.3	77	12.1	83	12.9
South Dakota	94	13.5	90	13.2	98	14.3
SOUTH	4,128	6.6	4,747	7.0	5,756	8.0
South Atlantic	1,931	6.3	2,281	6.8	2,868	7.9
Delaware	35	7.3	39	6.7	40	6.7
District of Columbia	71	9.3	70	9.8	83	12.2
Florida	492	7.3	643	7.8	934	9.8
Georgia	262	5.6	301	6.1	353	6.7
Maryland	175	4.6	217	5.3	266	6.2
North Carolina	321	6.1	349	6.4	389	6.8
South Carolina	155	5.8	185	6.6	255	8.6
Virginia	273	5.8	337	6.8	420	8.1
West Virginia	147	8.6	140	7.8	128	6.9
East South Central	825	6.6	924	6.8	1,033	7.4
Alabama	180	5.2	187	5.2	196	5.2
Kentucky	229	7.4	233	6.9	252	7.1
Mississippi	121	5.9	128	5.5	161	6.7
Tennessee	295	7.4	376	10.0	424	9.7
West South Central	1,372	7.1	1,542	7.4	1,855	8.4
Arkansas	151	7.8	169	8.0	209	9.4
Louisiana	223	6.0	233	6.1	259	6.6
Oklahoma	247	9.3	283	10.4	342	12.1
Texas	751	6.8	857	7.0	1,045	8.0
WEST	3,656	10.5	4,128	10.9	4,935	11.3
Mountain	712	8.6	813	8.4	1,021	9.6
Arizona	127	7.3	154	7.0	195	7.6
Colorado	188	8.1	215	8.5	286	10.3
Idaho	86	12.6	88	10.8	106	11.9
Montana	89	12.9	104	13.9	120	15.2
Nevada	36	8.1	50	8.5	78	11.9
New Mexico	71	6.9	83	7.3	118	9.5
Utah	74	6.5	78	6.5	72	5.5
Wyoming	41	12.0	41	10.9	46	11.4
Pacific	2,947	11.1	3,315	11.7	3,914	13.3
Alaska	17	6.6	19	5.2	26	6.7
California	2,239	11.2	2,505	11.8	2,980	13.4
Hawaii	64	7.8	77	8.9	103	11.6
Oregon	272	12.8	316	13.8	359	14.7
Washington	355	10.3	398	11.2	446	12.3

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

F. Pharmacists

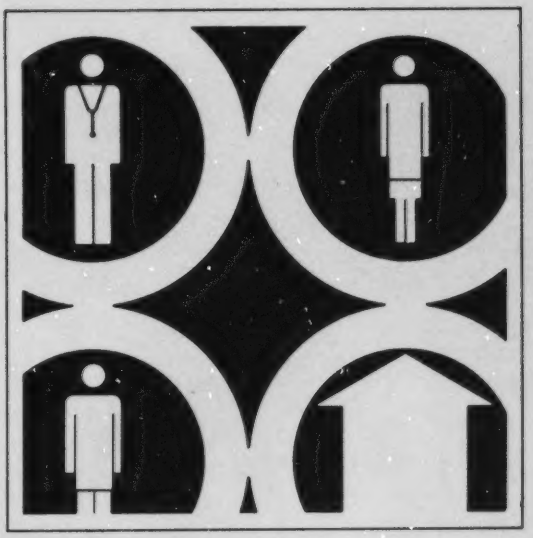

Table F-1
NUMBER OF ACTIVE PHARMACISTS AND PHARMACIST-TO-POPULATION RATIOS: SELECTED YEARS, DECEMBER 31, 1950-1980

Year	All active pharmacists 1/	Total population (thousands) 2/	Active pharmacists per 100,000 total population
1950	88,300	156,024	56.6
1955	96,900	169,959	57.0
1960	101,000	184,896	54.6
1965	104,100	198,357	52.5
1970	113,700	209,096	54.4
1975	122,480	217,966	56.2
1976	127,280	219,648	57.9
1977	132,080	221,419	59.7
1978	136,670	223,274	61.2
1979	140,360	225,099	62.4
1980	144,260	227,911	63.3

1/ Includes pharmacists in Federal service; also includes pharmacists in U.S. Possessions.

2/ Total population includes civilian population in U.S. Possessions.

SOURCE: Data for 1950 from U.S. Department of Health, Education, and Welfare, Public Health Service. Health Manpower Source Book, Section 17, 1960 Industry and Occupation Data. PHS Publication 263 (Section 17), 1963.

Data for 1955 through 1980 estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

U.S. Bureau of the Census. Current Population Report P-25, Nos. 438, 542, and 812.

Table F-2
NUMBER OF ACTIVE PHARMACISTS AND PHARMACIST-TO-POPULATION RATIOS, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1980

Geographic area	1970		1975		1980	
	Active pharmacists	Active pharmacists per 100,000 resident population	Active pharmacists	Active pharmacists per 100,000 resident population	Active pharmacists	Active pharmacists per 100,000 resident population
UNITED STATES 1/	112,570	55.4	121,260	57.0	142,780	64.7
NORTHEAST	29,524	60:1	30,674	62.0	30,333	60.8
New England	7,697	64.8	8,199	67.3	8,497	67.7
Connecticut	1,998	65.7	2,199	70.9	2,215	70.7
Maine	438	43.9	429	40.5	526	47.3
Massachusetts	4,149	72.8	4,315	74.2	4,343	72.6
New Hampshire	358	48.2	401	49.4	502	57.8
Rhode Island	560	58.8	596	64.0	633	65.9
Vermont	194	43.4	259	54.9	278	56.4
Middle Atlantic	21,827	58.5	22,475	60.3	21,836	58.5
New Jersey	3,838	53.3	4,766	65.0	4,515	60.3
New York	11,474	62.8	11,269	62.3	10,673	59.5
Pennsylvania	6,515	55.1	6,440	54.3	6,648	55.8
NORTH CENTRAL	32,588	57.5	33,469	58.1	39,579	67.7
East North Central	22,514	55.8	23,566	57.6	27,341	66.0
Illinois	6,914	62.1	6,783	60.6	7,757	68.9
Indiana	2,964	56.9	3,461	65.1	4,030	74.9
Michigan	4,804	54.0	4,977	54.6	5,761	62.0
Ohio	5,443	51.0	5,770	53.7	6,619	61.5
Wisconsin	2,389	53.9	2,575	56.4	3,174	66.6
West North Central	10,074	61.6	9,903	59.3	12,238	72.0
Iowa	1,753	61.9	1,599	56.0	2,084	71.9
Kansas	1,511	67.2	1,368	60.0	1,763	76.7
Minnesota	2,051	53.7	2,218	56.6	2,760	68.4
Missouri	2,801	59.7	2,778	58.3	3,086	63.7
Nebraska	1,105	74.2	1,124	72.8	1,443	90.8
North Dakota	423	68.3	406	63.7	586	91.0
South Dakota	430	64.4	410	60.2	516	75.2
SOUTH	31,957	50.6	35,352	52.0	46,938	65.0
South Atlantic	14,679	47.6	16,801	50.0	20,919	57.9
Delaware	247	44.8	271	46.8	271	45.4
District of Columbia	326	43.1	626	88.0	668	98.4
Florida	3,329	48.5	3,918	47.3	4,129	43.3
Georgia	2,357	51.1	2,825	57.3	4,106	78.1
Maryland	2,284	57.9	2,114	51.3	2,415	55.9
North Carolina	2,092	41.0	2,402	44.1	3,128	54.8
South Carolina	1,303	50.1	1,459	51.8	1,928	65.0
Virginia	1,940	41.5	2,421	48.6	3,246	62.5
West Virginia	801	45.8	765	42.5	1,028	55.6
East South Central	6,833	53.2	7,389	54.7	10,158	72.3
Alabama	1,924	55.7	1,883	52.1	2,668	71.0
Kentucky	1,672	51.7	1,835	54.2	2,431	68.9
Mississippi	1,131	50.8	1,197	51.1	1,699	70.6
Tennessee	2,106	53.4	2,474	59.3	3,360	77.1
West South Central	10,445	53.8	11,162	53.5	15,861	71.9
Arkansas	1,001	51.8	1,165	55.2	1,707	76.9
Louisiana	1,875	51.3	2,018	53.0	2,964	75.8
Oklahoma	1,764	68.6	1,575	58.0	2,207	77.9
Texas	5,805	51.6	6,404	52.3	8,983	68.6
WEST	18,501	52.9	21,765	57.4	25,931	64.6
Mountain	4,820	57.7	5,958	61.9	6,731	63.3
Arizona	930	51.8	1,336	60.4	1,438	56.4
Colorado	1,419	63.7	1,721	67.7	1,726	61.9
Idaho	476	66.3	496	61.0	650	73.0
Montana	328	47.0	474	63.5	617	78.3
Nevada	284	57.4	326	55.3	313	47.9
New Mexico	496	48.4	717	62.7	859	69.4
Utah	651	61.0	638	53.0	821	62.2
Wyoming	236	70.6	250	66.5	307	75.8
Pacific	13,681	51.3	15,807	55.9	19,200	65.0
Alaska	66	21.6	161	44.1	242	62.1
California	9,790	48.8	11,567	54.6	13,866	62.5
Hawaii	221	28.5	258	29.7	356	40.2
Oregon	1,399	66.5	1,451	63.5	1,773	72.6
Washington	2,205	64.5	2,370	66.6	2,963	81.9

1/ Excludes counts of pharmacists in U.S. Possessions.

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

G. Podiatrists

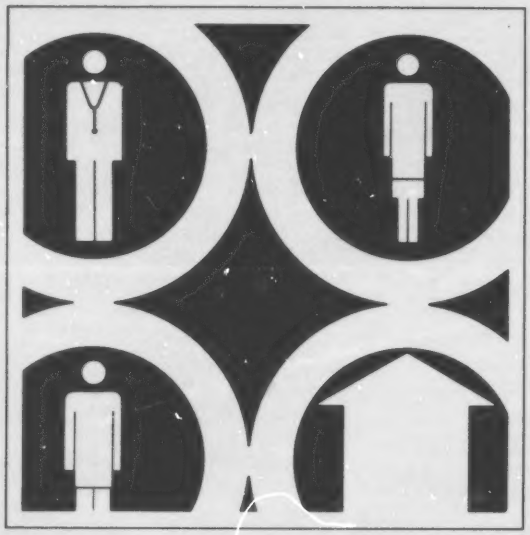

Table 7-1
NUMBER OF ACTIVE PODIATRISTS AND PODIATRIST-TO-POPULATION RATIOS: SELECTED YEARS, DECEMBER 31, 1950-1980

Year	All active podiatrists 1/	Total population (thousands)	Active podiatrists per 100,000 total population
1950	6,400	153,622	4.2
1955	6,700	167,513	4.0
1960	7,000	182,287	3.8
1965	7,600	195,539	3.9
1970	7,110	206,076	3.4
1975	7,260	214,446	3.4
1976	7,460	216,022	3.4
1977	7,730	217,739	3.5
1978	8,000	219,484	3.6
1979	8,340	221,195	3.8
1980	8,880	223,870	4.0

1/ Includes podiatrists in Federal service.

SOURCE: Data for 1950 through 1960 from U.S. Department of Health, Education, and Welfare, Public Health Service. Health Manpower Source Book, Section 20, Manpower Supply and Educational Statistics for Selected Health Occupations. PHS Publication No. 263 (Section 20), 1969.

Data for 1965 from U.S. Department of Health, Education, and Welfare, National Center for Health Statistics. Health Resources Statistics 1965, PHS Publication No. 1509, 1966, and data for 1970 from Health Resources Statistics 1976-77, DHEW Publication No. (PHS) 79-1509, 1979.

Data for 1975 through 1980 estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

U.S. Bureau of the Census. Current Population Report P-25, Nos. 438, 542, and 812.

Table G-2
NUMBER OF ACTIVE PODIATRISTS AND PODIATRIST-TO-POPULATION RATIOS, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1980

Geographic area	1970		1975		1980	
	Active podiatrists	Active podiatrists per 100,000 resident population	Active podiatrists	Active podiatrists per 100,000 resident population	Active podiatrists	Active podiatrists per 100,000 resident population
UNITED STATES	7,110	3.5	7,260	3.4	8,880	4.0
NORTHEAST	2,989	6.0	2,858	5.8	3,127	6.3
New England	687	5.7	666	5.5	688	5.5
Connecticut	182	5.9	181	5.8	206	6.6
Maine	22	2.2	19	1.8	27	2.4
Massachusetts	399	7.0	380	6.5	368	6.2
New Hampshire	21	2.8	26	2.5	30	3.5
Rhode Island	57	5.9	53	5.7	47	4.9
Vermont	6	1.3	7	1.5	10	2.0
Middle Atlantic	2,302	6.1	2,192	5.9	2,439	6.5
New Jersey	363	5.0	365	5.0	432	5.8
New York	1,243	6.8	1,139	6.4	1,231	6.9
Pennsylvania	696	5.8	668	5.6	776	6.5
NORTH CENTRAL	2,061	3.6	1,997	3.5	2,295	3.9
East North Central	1,693	4.2	1,641	4.0	1,875	4.5
Illinois	606	5.4	583	5.2	636	5.7
Indiana	147	2.8	140	2.6	158	2.9
Michigan	274	3.1	289	3.2	432	4.6
Ohio	531	5.0	489	4.6	499	4.6
Wisconsin	135	3.0	140	3.1	150	3.1
West North Central	368	2.2	356	2.1	420	2.5
Iowa	95	3.3	87	3.0	96	3.3
Kansas	45	2.0	48	2.1	57	2.5
Minnesota	79	2.0	78	2.0	80	2.0
Missouri	86	1.8	85	1.8	126	2.6
Nebraska	42	2.8	39	2.5	39	2.5
North Dakota	6	1.0	5	0.8	10	1.6
South Dakota	15	2.3	14	2.1	12	1.7
SOUTH	1,009	1.6	1,214	1.8	1,810	2.5
South Atlantic	601	1.9	773	2.3	1,148	3.2
Delaware	22	4.0	19	3.3	24	4.0
District of Columbia	58	7.6	43	6.0	70	10.3
Florida	192	2.8	331	4.0	470	4.9
Georgia	58	1.1	69	1.4	117	2.2
Maryland	99	2.5	120	2.9	192	4.4
North Carolina	57	1.1	54	1.0	78	1.4
South Carolina	13	0.5	15	0.5	31	1.0
Virginia	59	1.2	81	1.6	124	2.4
West Virginia	43	2.5	41	2.3	42	2.3
East South Central	113	0.9	135	1.0	184	1.3
Alabama	20	0.6	21	0.6	40	1.1
Kentucky	56	1.7	63	1.9	65	1.8
Mississippi	8	0.4	10	0.4	14	0.6
Tennessee	29	0.7	41	1.0	65	1.5
West South Central	295	1.5	306	1.5	478	2.2
Arkansas	18	0.9	21	1.0	26	1.2
Louisiana	40	1.1	35	0.9	49	1.3
Oklahoma	47	1.8	45	1.7	68	2.4
Texas	190	1.7	205	1.7	335	2.6
WEST	1,051	3.0	1,191	3.1	1,648	4.1
Mountain	204	2.4	253	2.6	356	3.3
Arizona	37	2.1	74	3.3	94	3.7
Colorado	71	3.2	68	2.7	93	3.3
Idaho	16	2.2	17	2.1	20	2.2
Montana	14	2.0	13	1.7	18	2.3
Nevada	16	3.2	16	2.7	26	4.0
New Mexico	20	2.0	25	2.2	43	3.5
Utah	25	2.3	32	2.7	57	4.3
Wyoming	5	1.5	8	2.1	5	1.2
Pacific	847	3.2	938	3.3	1,292	4.4
Alaska	2	0.6	1	0.3	4	1.0
California	740	3.7	815	3.8	1,105	5.0
Hawaii	5	0.6	6	0.7	13	1.5
Oregon	35	1.7	42	1.8	58	2.4
Washington	65	1.9	74	2.1	112	3.1

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

H. Veterinarians

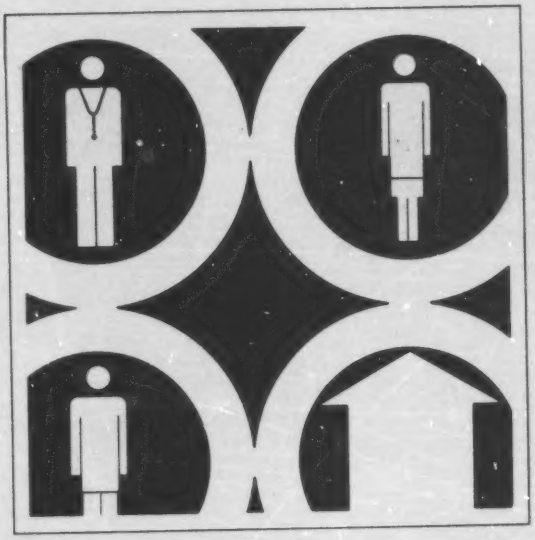

Table H-1
NUMBER OF ACTIVE VETERINARIANS AND VETERINARIAN-TO-POPULATION RATIOS: SELECTED YEARS, DECEMBER 31, 1950-1980

Year	All active veterinarians 1/	Total population (thousands)	Active veterinarians per 100,000 total population
1950	13,500	153,622	8.8
1955	16,500	167,513	9.8
1960	19,700	182,287	10.8
1965	23,300	195,539	11.9
1970	25,900	206,076	12.6
1975	31,050	214,446	14.5
1976	32,280	216,022	14.9
1977	33,030	217,739	15.2
1978	34,220	219,484	15.6
1979	35,410	221,195	16.0
1980	36,000	223,870	16.1

1/ Includes veterinarians in Federal service.

SOURCE: Data for 1950 from U.S. Department of Health, Education, and Welfare, Public Health Service. Health Manpower Source Book, Section 20, Manpower Supply and Educational Statistics for Selected Health Occupations. PHS Publication No. 263 (Section 20), 1969.

Data for 1955 through 1980 estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

U.S. Bureau of the Census. Current Population Report P-25, Nos. 438, 542, and 812.

Table H-2
NUMBER OF ACTIVE VETERINARIANS AND VETERINARIAN-TO-POPULATION RATIOS, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1980

Geographic area	1970		1975		1980	
	Active veterinarians	Active veterinarians per 100,000 resident population	Active veterinarians	Active veterinarians per 100,000 resident population	Active veterinarians	Active veterinarians per 100,000 resident population
UNITED STATES	25,900	12.7	31,050	14.6	36,000	16.3
NORTHEAST	4,081	8.3	4,819	9.7	5,381	10.8
New England	959	8.0	1,288	10.6	1,457	11.6
Connecticut	247	8.1	322	10.4	382	12.2
Maine	99	9.9	141	13.3	159	14.3
Massachusetts	391	6.8	505	8.7	561	9.4
New Hampshire	86	11.6	134	16.5	149	17.2
Rhode Island	47	4.9	69	7.4	70	7.3
Vermont	89	19.7	117	24.8	136	27.6
Middle Atlantic	3,122	8.4	3,531	9.5	3,924	10.5
New Jersey	570	7.9	700	9.5	806	10.8
New York	1,343	8.4	1,672	9.2	1,750	9.8
Pennsylvania	1,009	8.5	1,159	9.7	1,368	11.5
NORTH CENTRAL	9,125	16.1	10,260	17.8	11,607	19.9
East North Central	5,019	12.4	5,707	14.0	6,662	16.1
Illinois	1,339	12.0	1,456	13.0	1,646	14.6
Indiana	800	15.3	883	16.6	1,018	18.9
Michigan	992	11.1	1,188	13.0	1,405	15.1
Ohio	1,220	11.4	1,406	13.1	1,584	14.7
Wisconsin	668	15.0	774	16.8	1,009	21.2
West North Central	4,106	25.0	4,553	27.3	4,945	29.1
Iowa	1,188	41.9	1,237	43.2	1,303	44.9
Kansas	610	27.1	695	30.4	768	33.4
Minnesota	782	20.4	900	22.9	981	24.3
Missouri	763	16.2	872	18.3	1,006	20.8
Nebraska	452	30.3	493	31.9	519	32.6
North Dakota	100	16.2	117	18.3	134	20.8
South Dakota	211	31.7	239	35.1	234	34.1
SOUTH	7,472	11.8	9,451	13.9	11,565	16.0
South Atlantic	3,540	11.5	4,433	13.1	5,244	14.5
Delaware	78	14.2	73	12.6	82	13.7
District of Columbia	81	10.8	70	9.8	91	13.5
Florida	853	12.4	1,194	14.4	1,443	15.1
Georgia	618	13.4	728	14.7	8/9	16.7
Maryland	643	16.3	798	19.3	833	19.3
North Caroline	406	8.0	531	9.7	692	12.1
South Carolina	203	7.8	249	8.8	287	9.7
Virginia	568	12.2	673	13.5	794	15.3
West Virginia	90	5.1	117	6.5	143	7.7
East South Central	1,351	10.5	1,667	12.3	2,112	15.0
Alabama	442	12.8	524	14.5	625	16.6
Kentucky	353	10.9	440	13.0	531	15.1
Mississippi	215	9.7	260	11.1	349	14.5
Tennessee	341	8.7	443	10.6	607	13.9
West South Central	2,581	13.3	3,351	16.1	4,209	19.1
Arkansas	211	11.0	280	13.2	341	15.4
Louisiana	307	8.4	421	11.0	567	14.5
Oklahoma	421	16.3	557	20.5	694	24.5
Texas	1,642	14.6	2,093	17.2	2,607	19.9
WEST	5,222	15.0	6,520	17.2	7,447	18.5
Mountain	1,626	19.4	2,170	22.5	2,461	23.1
Arizona	246	13.7	358	16.2	458	18.0
Colorado	591	26.6	773	30.4	763	27.3
Idaho	165	22.9	219	26.3	276	31.0
Montana	186	26.7	241	32.3	275	34.9
Nevada	85	17.2	106	17.9	136	20.8
New Mexico	144	14.1	197	17.0	234	18.9
Utah	121	11.3	158	12.9	171	13.0
Wyoming	88	26.0	118	31.4	148	36.5
Pacific	3,596	13.5	4,350	15.4	4,986	16.9
Alaska	24	7.9	50	13.7	84	21.5
California	2,569	12.8	3,080	14.5	3,391	15.3
Hawaii	68	8.8	80	9.2	102	11.5
Oregon	322	15.3	425	18.6	502	20.6
Washington	613	17.9	715	20.1	907	25.1

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

Table H-3
NUMBER AND PERCENT DISTRIBUTION OF ACTIVE VETERINARIANS, BY TYPE OF EMPLOYER: DECEMBER 31, 1980

Type of employer	Active veterinarians	
	Number	Percent distribution
All active	36,000	100.0
Self-employed	19,180	53.3
Private practice employee	9,000	25.0
College or university	2,830	7.9
Industry employee	950	2.6
Federal government (civilian)	1,600	4.4
Armed Forces	610	1.7
State or local government	900	2.5
Other	930	2.6

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from American Veterinary Medical Association.

I. Registered Nurses

Table I-1
ACTIVE REGISTERED NURSES, FULL TIME, PART TIME, AND FULL-TIME EQUIVALENTS,
AND NURSE-TO-POPULATION RATIOS: SELECTED YEARS 1950-1980

Year (date shifted) 1/	Number of active registered nurses 2/				Total population (thousands)	Active registered nurses per 100,000 population	
	Full time	Part time	All active	Full-time equivalent		All active	Full-time equivalent
1950	299,000	36,000	335,000	317,000	153,622	218.1	206.4
1955	388,000	42,000	430,000	409,000	167,513	256.7	244.2
1960	424,000	103,000	527,000	476,000	182,287	289.1	261.1
1965	466,000	155,000	621,000	544,000	195,539	317.6	278.2
1970	534,000	216,000	750,000	642,000	206,076	363.9	311.5
1975 3/	682,000	279,000	961,000	822,000	214,446	448.1	383.3
1976 3/	675,000	306,000	981,000	828,000	216,022	454.1	383.3
1977	708,000	320,000	1,028,000	868,000	217,739	472.1	398.6
1978	741,000	334,000	1,075,000	908,000	219,484	489.8	413.7
1979	772,000	347,000	1,119,000	946,000	221,195	505.9	427.7
1980	804,000	360,000	1,164,000	984,000	223,870	519.9	439.5

1/ The dates are actually January 1 of the year following the year listed (rather than January 1 of the year listed) to achieve greatest comparability with the December 31 data for other health occupations in this report.

2/ Includes registered nurses in Federal service.

3/ The disruption between data trends up to 1975 and data trends after 1975 occurs because of a change of methodology for estimating nurse supply.

SOURCE: Number of all active nurses for 1950 from Inventory of Professional Registered Nurses, American Nurses' Association, 1951. (Full time, part time, and full-time equivalent data estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.)

Number of all active, full time, and part time nurses for 1955, 1965, 1970, and 1975 from Interagency Conference on Nursing Statistics, 1976. (Full-time equivalent data estimated by HRA, BHPr, Division of Health Professions Analysis.)

Counts of nurses for 1960 estimated by HRA, BHPr, Division of Health Professions Analysis, based on data from Interagency Conference on Nursing Statistics, 1976.

Counts of nurses for 1976 through 1980 estimated by HRA, BHPr, Division of Health Professions Analysis.

U.S. Bureau of the Census. Current Population Report P-25, Nos. 438, 542, and 812.

Table I-2
NUMBER OF ACTIVE REGISTERED NURSES AND NURSE-TO-POPULATION RATIOS, BY REGION, DIVISION, AND STATE: 1970, 1975, and 1980 1/

Geographic area	1970		1975		1980	
	Active registered nurses	Active registered nurses per 100,000 resident population	Active registered nurses	Active registered nurses per 100,000 resident population	Active registered nurses	Active registered nurses per 100,000 resident population
UNITED STATES	750,000	369	961,000	451	1,163,800	520
NORTHEAST	241,000	491	294,500	596	316,200	620
New England	68,100	575	82,800	679	94,100	747
Connecticut	17,000	561	19,500	629	21,900	697
Maine	4,600	463	5,300	501	6,500	575
Massachusetts	35,200	619	43,900	755	47,400	791
New Hampshire	4,200	569	5,100	628	7,000	797
Rhode Island	4,400	463	5,400	580	7,400	770
Vermont	2,700	607	3,500	742	3,900	790
Middle Atlantic	172,900	465	211,700	568	222,100	579
New Jersey	30,100	420	36,900	503	41,200	550
New York	84,200	462	103,900	575	106,900	561
Pennsylvania	58,600	497	71,000	599	74,000	625
NORTH CENTRAL	208,000	366	264,900	461	319,600	547
East North Central	143,700	357	182,200	445	218,000	527
Illinois	42,300	381	52,100	465	56,500	503
Indiana	14,900	287	20,200	380	29,100	543
Michigan	28,900	325	37,300	409	44,200	476
Ohio	39,800	374	49,600	462	59,500	556
Wisconsin	17,800	403	23,000	501	28,700	603
West North Central	64,300	394	82,700	496	101,600	597
Iowa	11,300	400	13,900	486	16,400	567
Kansas	8,600	382	11,100	487	13,000	559
Minnesota	18,100	476	23,000	587	29,700	737
Missouri	14,200	304	18,400	386	24,500	506
Nebraska	6,400	431	8,500	551	8,900	556
North Dakota	2,700	437	3,700	581	4,500	688
South Dakota	3,000	450	4,100	602	4,600	671
SOUTH	177,000	282	243,300	358	311,600	424
South Atlantic	102,900	335	138,300	411	173,000	468
Delaware	2,800	511	3,900	674	4,900	806
District of Columbia	4,700	621	6,000	843	7,600	1,123
Florida	24,900	367	31,500	381	46,600	476
Georgia	11,800	257	18,100	367	17,500	326
Maryland	13,900	354	18,800	456	25,200	573
North Carolina	15,800	311	20,900	384	23,100	395
South Carolina	7,500	290	9,900	352	13,300	434
Virginia	15,700	338	21,300	428	24,700	460
West Virginia	5,900	338	7,900	439	10,100	549
East South Central	29,200	228	41,800	309	56,700	400
Alabama	7,400	215	10,500	291	13,900	366
Kentucky	8,000	248	11,400	337	14,700	413
Mississippi	4,900	221	7,000	299	9,400	386
Tennessee	8,900	227	12,900	309	18,700	428
West South Central	44,900	232	63,200	303	81,900	365
Arkansas	3,600	187	5,500	261	6,100	271
Louisiana	8,600	236	11,200	294	14,200	360
Oklahoma	6,100	238	8,600	317	9,900	344
Texas	26,600	238	37,900	310	51,700	388
WEST	124,000	356	158,300	418	216,400	530
Mountain	33,500	348	44,800	466	58,200	536
Arizona	8,200	462	11,500	520	13,900	529
Colorado	11,200	507	14,500	571	19,600	682
Idaho	2,400	337	3,300	406	4,400	490
Montana	3,100	432	3,800	509	2,800	356
Nevada	1,600	327	2,400	407	2,900	434
New Mexico	2,600	256	3,500	306	5,900	466
Utah	3,000	283	4,100	341	6,400	478
Wyoming	1,400	422	1,700	452	2,300	571
Pacific	90,500	341	113,500	401	158,200	528
Alaska	1,300	429	2,500	685	2,500	608
California	64,500	323	78,800	372	112,200	498
Hawaii	2,900	377	3,700	426	6,300	665
Oregon	8,200	392	10,800	473	15,300	625
Washington	13,600	399	17,700	497	21,900	598

1/ Because the time period for count of nurses has traditionally been different from that of other health occupations, numbers for nurses are actually as of the start of the year after the year given.

SOURCE: Estimated by Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis, based on data from HRA, BHPr, Division of Nursing.

J. Appendix I.
Physician (M.D.) Specialists, by State

Table J-1
NUMBER OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) AND PHYSICIAN-TO-POPULATION RATIOS, BY GENERAL AND SELECTED SPECIALTY PRACTICE, BY REGION: DECEMBER 31, 1970 AND 1978

Type of physician practice	1970					1978				
	Number of active non-Federal physicians	Active non-Federal physicians per 100,000 population				Number of active non-Federal physicians	Active non-Federal physicians per 100,000 population			
		All regions	North-east	North Central	South	West		All regions	North-east	North Central	South	West
General and family practice	54,376	27.0	26.9	26.5	24.0	33.1	53,580	24.7	21.4	25.4	23.9	29.3
Internal medicine and related specialties 1/	47,788	23.7	35.3	19.1	17.9	25.1	73,358	33.9	48.1	28.7	27.2	35.5
Pediatrics 2/	17,181	8.5	11.7	6.4	7.3	9.6	24,207	11.2	14.7	9.1	9.8	12.2
Surgical specialties 3/	61,081	30.3	37.0	25.9	27.0	34.0	74,245	34.3	39.9	29.5	32.2	38.0
Obstetrics/gynecology	17,615	8.7	11.1	7.1	7.9	9.5	22,897	10.6	12.5	8.8	10.3	11.3
Psychiatry 4/	20,883	10.4	17.3	7.5	6.8	11.9	26,549	12.3	19.4	8.8	8.9	14.4
Anesthesiology	10,161	5.0	6.7	4.1	3.6	6.7	13,687	6.3	7.7	5.4	5.2	8.1
Radiology 5/	11,988	5.9	7.4	5.3	5.0	7.0	17,243	8.0	9.3	7.1	7.0	9.2
Pathology	9,203	4.6	5.9	4.4	3.7	4.6	11,833	5.5	6.6	5.3	4.8	5.5

1/ Related specialties include allergy, cardiovascular diseases, gastroenterology, and pulmonary disease.

2/ Includes pediatric allergy and pediatric cardiology.

3/ Surgical specialties include general surgery, neurological surgery, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, colon and rectal surgery, thoracic surgery, and urology.

4/ Includes child psychiatry.

5/ Includes diagnostic radiology and therapeutic radiology.

SOURCE: American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also the issue for 1970.

Table J-2
NUMBER AND RATIO TO POPULATION OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) IN GENERAL AND FAMILY PRACTICE, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1978

Geographic area	1970		1975		1978	
	Active non-Federal physicians in general and family practice	Active non-Federal physicians in general and family practice per 100,000 civilian population	Active non-Federal physicians in general and family practice	Active non-Federal physicians in general and family practice per 100,000 civilian population	Active non-Federal physicians in general and family practice	Active non-Federal physicians in general and family practice per 100,000 civilian population
UNITED STATES 1/	54,376	27.0	51,511	24.4	53,580	24.7
NORTHEAST	13,156	26.9	11,216	22.7	10,502	21.4
New England	2,932	24.9	2,513	20.7	2,411	19.7
Connecticut	664	22.0	606	19.6	586	18.9
Maine	267	27.1	256	24.4	308	28.5
Massachusetts	1,433	25.3	1,133	19.5	1,009	17.5
New Hampshire	233	31.6	215	26.6	204	23.6
Rhode Island	200	21.8	171	18.4	180	19.4
Vermont	135	30.3	132	28.0	124	25.5
Middle Atlantic	10,224	27.5	8,703	23.4	8,091	22.0
New Jersey	1,730	24.2	1,480	20.3	1,353	18.6
New York	5,060	27.7	4,143	23.0	3,600	20.3
Pennsylvania	3,434	29.1	3,080	26.0	3,138	26.7
NORTH CENTRAL	14,971	26.5	14,214	24.7	14,781	25.4
East North Central	10,427	25.9	9,675	23.7	9,896	24.0
Illinois	3,058	27.6	2,805	25.1	2,939	26.2
Indiana	1,638	31.5	1,599	30.2	1,656	30.8
Michigan	1,795	20.2	1,639	18.0	1,622	17.7
Ohio	2,727	25.6	2,450	22.9	2,444	22.8
Wisconsin	1,209	27.3	1,182	25.8	1,235	26.4
West North Central	4,544	28.0	4,539	27.3	4,885	28.8
Iowa	891	31.5	880	30.8	917	31.6
Kansas	653	29.5	643	28.5	695	29.9
Minnesota	1,207	31.7	1,333	34.0	1,479	[illegible]
Missouri	890	19.2	791	16.7	793	16.4
Nebraska	511	34.6	523	34.1	573	36.8
North Dakota	189	31.1	185	29.6	212	33.1
South Dakota	203	30.7	184	27.3	216	31.6
SOUTH	14,884	24.0	14,927	22.2	16,658	23.9
South Atlantic	6,818	22.6	7,155	21.6	8,148	23.9
Delaware	137	25.2	128	22.3	137	23.7
District of Columbia	212	28.5	173	24.6	164	24.7
Florida	1,465	21.7	1,803	22.0	2,300	26.9
Georgia	889	19.7	892	18.3	940	18.7
Maryland	802	20.7	797	19.6	826	20.1
North Carolina	1,100	22.1	1,122	21.0	1,251	22.9
South Carolina	666	26.4	737	26.8	827	29.2
Virginia	1,105	24.7	1,121	23.2	1,254	25.0
West Virginia	442	25.3	380	21.1	449	24.1
East South Central	3,046	24.0	2,916	21.7	3,167	22.9
Alabama	720	21.1	689	19.2	776	20.9
Kentucky	891	28.0	869	25.9	896	25.9
Mississippi	581	26.4	543	23.4	581	24.4
Tennessee	854	21.8	815	19.6	914	21.2
West South Central	5,020	26.2	4,858	23.5	5,343	24.5
Arkansas	576	30.0	590	28.1	669	31.0
Louisiana	876	24.3	797	21.2	831	21.0
Oklahoma	632	25.0	589	21.9	644	22.9
Texas	2,936	26.5	2,882	23.8	3,199	24.8
WEST	11,365	33.1	11,154	29.9	11,639	29.3
Mountain	2,346	28.5	2,517	26.5	2,789	27.2
Arizona	511	28.9	622	28.5	686	29.3
Colorado	610	28.0	647	25.9	792	29.8
Idaho	253	35.5	245	30.3	277	31.6
Montana	245	35.5	226	30.5	228	29.4
Nevada	141	29.1	152	26.1	154	23.4
New Mexico	197	19.6	215	19.1	229	19.1
Utah	262	24.7	286	23.9	305	23.3
Wyoming	127	38.5	124	33.3	116	27.6
Pacific	9,019	34.6	8,637	31.0	8,850	30.0
Alaska	66	24.1	82	24.2	107	27.6
California	7,040	35.8	6,597	31.6	6,657	30.2
Hawaii	193	26.7	196	24.2	206	24.4
Oregon	642	30.6	648	31.0	705	28.8
Washington	1,078	32.2	1,114	31.8	1,175	31.4

1/ Excludes counts of physicians and populations in U.S. Possessions.

SOURCE: American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues.

Table J-3
NUMBER AND RATIO TO POPULATION OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) IN INTERNAL MEDICINE AND RELATED SPECIALTIES, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1978 1/

Geographic area	1970		1975		1978	
	Active non-Federal physicians in internal medicine	Active non-Federal physicians in internal medicine per 100,000 civilian population	Active non-Federal physicians in internal medicine	Active non-Federal physicians in internal medicine per 100,000 civilian population	Active non-Federal physicians in internal medicine	Active non-Federal physicians in internal medicine per 100,000 civilian population
UNITED STATES 2/	47,788	23.7	60,059	28.4	73,358	33.9
NORTHEAST	17,262	35.3	20,777	42.1	23,586	48.1
New England	4,150	35.2	5,319	43.8	6,460	52.9
Connecticut	1,094	36.2	1,461	47.3	1,752	56.5
Maine	136	13.8	213	20.3	274	25.3
Massachusetts	2,344	41.3	2,831	48.8	3,477	60.4
New Hampshire	136	18.4	205	25.4	236	27.3
Rhode Island	276	30.1	430	46.4	496	53.4
Vermont	164	36.8	179	37.9	225	46.2
Middle Atlantic	13,112	35.3	15,458	41.5	17,126	46.6
New Jersey	1,816	25.5	2,410	33.0	2,760	37.9
New York	8,445	46.3	9,437	52.3	10,140	57.2
Pennsylvania	2,851	24.2	3,611	30.5	4,226	36.0
NORTH CENTRAL	10,789	19.1	13,558	23.6	16,682	28.7
East North Central	7,783	19.4	9,862	24.1	11,973	29.1
Illinois	2,449	22.1	3,080	27.6	3,853	34.4
Indiana	577	11.1	726	13.7	922	17.1
Michigan	1,700	19.1	2,390	26.3	2,771	30.2
Ohio	2,309	21.7	2,722	25.4	3,170	29.6
Wisconsin	748	16.9	944	20.6	1,257	26.9
West North Central	3,006	18.5	3,696	22.3	4,709	27.8
Iowa	307	10.9	362	12.7	469	16.1
Kansas	331	15.0	454	20.2	562	24.2
Minnesota	966	25.4	1,152	29.4	1,523	37.9
Missouri	1,072	23.1	1,296	27.3	1,617	33.5
Nebraska	221	15.0	301	19.6	354	22.7
North Dakota	67	11.0	79	12.6	106	16.5
South Dakota	42	6.4	52	7.7	78	11.4
SOUTH	11,104	17.9	14,616	21.8	19,000	27.2
South Atlantic	6,518	21.6	8,567	25.9	11,032	32.3
Delaware	117	21.5	134	23.3	146	25.3
District of Columbia	633	85.0	697	99.1	805	121.4
Florida	1,538	22.8	2,252	27.5	2,918	34.1
Georgia	719	15.9	978	20.0	1,225	24.4
Maryland	1,305	33.7	1,630	40.0	2,144	52.2
North Carolina	886	17.8	1,127	21.1	1,469	26.8
South Carolina	229	9.1	355	12.9	496	17.3
Virginia	847	18.9	1,083	22.4	1,444	28.7
West Virginia	244	14.0	311	17.3	385	20.7
East South Central	1,687	13.3	2,315	17.3	2,973	21.5
Alabama	421	12.3	560	15.6	788	21.3
Kentucky	414	13.0	568	16.9	687	19.9
Mississippi	182	8.3	256	11.0	309	13.0
Tennessee	670	17.1	931	22.4	1,189	27.6
West South Central	2,899	15.2	3,734	18.1	4,995	22.9
Arkansas	181	9.4	238	11.3	310	14.4
Louisiana	548	15.2	679	18.0	904	22.9
Oklahoma	355	14.0	437	16.3	603	21.4
Texas	1,815	16.4	2,380	19.7	3,178	24.6
WEST	8,633	25.1	11,108	29.7	14,090	35.5
Mountain	1,537	18.7	2,146	22.6	2,852	27.8
Arizona	334	18.9	581	26.6	783	33.4
Colorado	605	27.8	761	30.5	982	36.9
Idaho	57	80.1	80	9.9	110	12.6
Montana	75	10.9	95	12.8	128	16.5
Nevada	51	10.5	77	13.2	129	19.6
New Mexico	172	17.1	229	20.3	299	24.9
Utah	214	20.2	288	24.0	364	27.8
Wyoming	29	8.8	35	9.4	57	13.5
Pacific	7,096	27.2	8,962	32.2	11,238	38.1
Alaska	20	7.3	38	11.2	57	14.7
California	5,801	29.5	7,279	34.8	9,088	41.2
Hawaii	164	22.7	229	28.3	311	36.8
Oregon	437	20.8	582	25.5	748	30.6
Washington	674	20.1	834	23.8	1,034	27.6

1/ Related specialties include allergy, cardiovascular diseases, gastroenterology, and pulmonary diseases.

2/ Excludes counts of physicians and populations in U.S. Possessions.

SOURCE: American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues.

Table J-4
NUMBER AND RATIO TO POPULATION OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) IN PEDIATRICS, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1978 1/

Geographic area	1970		1975		1978	
	Active non-Federal physicians in pediatrics	Active non-Federal physicians in pediatrics per 100,000 civilian population	Active non-Federal physicians in pediatrics	Active non-Federal physicians in pediatrics per 100,000 civilian population	Active non-Federal physicians in pediatrics	Active non-Federal physicians in pediatrics per 100,000 civilian population
UNITED STATES 2/	17,181	8.5	20,938	9.9	24,207	11.2
NORTHEAST	5,740	11.7	6,692	13.6	7,213	14.7
New England	1,292	11.0	1,581	13.2	1,835	15.0
Connecticut	380	12.6	448	14.5	529	17.1
Maine	43	4.4	57	5.4	78	7.2
Massachusetts	683	12.0	830	14.3	936	16.3
New Hampshire	45	6.1	65	8.1	86	9.9
Rhode Island	101	11.0	130	14.0	142	15.3
Vermont	40	9.0	51	10.8	64	13.1
Middle Atlantic	4,448	12.0	5,111	13.7	5,378	14.6
New Jersey	629	8.8	824	11.3	934	12.8
New York	2,931	16.1	3,299	18.3	3,264	18.4
Pennsylvania	888	7.5	988	8.3	1,180	10.0
NORTH CENTRAL	3,625	6.4	4,506	7.8	5,283	9.1
East North Central	2,695	6.7	3,378	8.3	3,917	9.5
Illinois	879	7.9	1,120	10.0	1,255	11.2
Indiana	202	3.9	238	4.5	317	5.9
Michigan	562	6.3	764	8.4	861	9.4
Ohio	784	7.4	917	8.6	1,083	10.1
Wisconsin	268	6.1	339	7.4	401	8.6
West North Central	930	5.7	1,128	6.8	1,366	8.1
Iowa	110	3.9	140	4.9	183	6.3
Kansas	109	4.9	145	6.4	167	7.2
Minnesota	278	7.3	301	7.7	393	9.8
Missouri	321	6.9	398	8.4	461	9.6
Nebraska	74	5.0	100	6.5	104	6.7
North Dakota	21	3.5	26	4.2	32	5.0
South Dakota	17	2.6	18	2.7	26	3.8
SOUTH	4,529	7.3	5,683	8.5	6,855	9.8
South Atlantic	2,540	8.4	3,269	9.9	3,872	11.3
Delaware	51	9.4	61	10.6	62	10.7
District of Columbia	212	28.5	227	32.3	263	39.7
Florida	496	7.4	722	8.8	854	10.0
Georgia	311	6.9	382	7.8	453	9.0
Maryland	539	13.9	670	16.4	760	18.5
North Carolina	354	7.1	456	8.5	569	10.4
South Carolina	119	4.7	171	6.2	210	7.4
Virginia	375	8.4	473	9.8	568	11.3
West Virginia	83	4.8	107	5.9	133	7.2
East South Central	757	6.0	958	7.1	1,110	8.1
Alabama	180	5.3	244	6.8	287	7.7
Kentucky	181	5.7	252	7.5	284	8.2
Mississippi	98	4.5	113	4.9	130	5.5
Tennessee	298	7.6	349	8.4	409	9.5
West South Central	1,232	6.4	1,456	7.1	1,873	8.6
Arkansas	67	3.5	83	4.0	126	5.8
Louisiana	276	7.6	292	7.8	347	8.8
Oklahoma	131	5.2	149	5.5	212	7.5
Texas	758	6.9	932	7.7	1,188	9.2
WEST	3,287	9.6	4,057	10.9	4,856	12.2
Mountain	660	8.0	892	9.4	1,073	10.5
Arizona	125	7.1	234	10.7	265	11.3
Colorado	305	14.1	353	14.1	404	15.2
Idaho	26	3.7	33	4.1	40	4.6
Montana	31	4.5	36	4.9	47	6.1
Nevada	21	4.3	26	4.5	34	5.2
New Mexico	69	6.9	91	8.1	120	10.0
Utah	74	7.0	108	9.0	144	11.0
Wyoming	9	2.7	11	3.0	19	4.5
Pacific	2,627	10.1	3,165	11.4	3,783	12.8
Alaska	15	5.5	19	5.6	26	6.7
California	2,112	10.7	2,552	12.2	3,037	13.8
Hawaii	95	13.1	116	14.3	145	17.2
Oregon	136	6.5	171	7.5	204	8.3
Washington	269	8.0	307	8.8	371	9.9

1/ Includes pediatric allergy and pediatric cardiology.

2/ Excludes counts of physicians and populations in U.S. Possessions.

SOURCE: American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues.

Table J-5
NUMBER AND RATIO TO POPULATION OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) IN SURGICAL SPECIALTIES, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1978 1/

Geographic area	1970		1975		1978	
	Active non-Federal physicians in surgical specialties	Active non-Federal physicians in surgical specialties per 100,000 civilian population	Active non-Federal physicians in surgical specialties	Active non-Federal physicians in surgical specialties per 100,000 civilian population	Active non-Federal physicians in surgical specialties	Active non-Federal physicians in surgical specialties per 100,000 civilian population
UNITED STATES 2/	61,081	30.1	68,681	32.5	74,245	34.3
NORTHEAST	18,100	37.0	19,107	38.7	19,533	39.5
New England	4,417	37.5	4,821	39.7	5,167	42.3
Connecticut	1,112	36.8	1,225	39.7	1,318	42.5
Maine	236	23.9	297	28.3	313	29.0
Massachusetts	2,402	42.3	2,519	43.4	2,662	46.2
New Hampshire	198	26.8	260	32.2	289	33.4
Rhode Island	315	34.3	350	37.8	387	41.7
Vermont	154	34.5	170	36.0	198	40.7
Middle Atlantic	13,683	36.8	14,286	38.4	14,366	39.1
New Jersey	2,087	29.3	2,355	32.2	2,467	33.8
New York	8,078	44.3	8,111	44.9	7,956	44.9
Pennsylvania	3,518	29.8	3,820	32.2	3,943	33.5
NORTH CENTRAL	14,609	25.9	16,208	28.2	17,134	29.5
East North Central	10,362	25.8	11,587	28.4	12,141	29.5
Illinois	2,952	26.7	3,369	30.2	3,539	31.6
Indiana	1,018	19.6	1,163	21.9	1,237	23.0
Michigan	2,333	26.3	2,617	28.8	2,706	29.5
Ohio	2,972	27.9	3,172	29.6	3,299	30.8
Wisconsin	1,087	24.6	1,266	27.6	1,360	29.1
West North Central	4,247	26.1	4,621	27.8	4,993	29.4
Iowa	634	22.4	661	23.1	729	25.1
Kansas	485	21.9	569	25.3	630	27.1
Minnesota	1,181	31.0	1,238	31.6	1,353	33.6
Missouri	1,386	29.8	1,490	31.4	1,543	32.0
Nebraska	322	21.8	380	24.8	432	27.7
North Dakota	131	21.6	139	22.2	162	25.3
South Dakota	108	16.3	144	21.3	144	21.1
SOUTH	16,709	27.0	19,788	29.5	22,490	32.2
South Atlantic	8,778	29.1	10,619	32.0	11,935	35.0
Delaware	138	25.4	164	28.6	179	31.0
District of Columbia	537	72.1	552	78.5	574	86.6
Florida	2,199	32.6	2,948	36.0	3,373	39.1
Georgia	1,138	25.2	1,371	28.1	1,571	31.3
Maryland	1,341	34.7	1,550	38.0	1,698	41.4
North Carolina	1,216	24.4	1,446	27.1	1,623	29.7
South Carolina	533	21.1	652	23.5	757	26.7
Virginia	1,186	26.5	1,424	29.5	1,594	31.7
West Virginia	488	28.0	512	28.5	566	30.4
East South Central	3,101	24.4	3,562	26.6	3,989	28.8
Alabama	743	21.8	836	23.3	1,008	27.2
Kentucky	739	23.2	848	25.3	911	26.4
Mississippi	415	18.9	491	21.2	544	22.9
Tennessee	1,204	30.8	1,387	33.4	1,526	35.4
West South Central	4,830	25.3	5,607	27.2	6,566	30.1
Arkansas	345	18.0	429	20.4	491	22.8
Louisiana	1,078	29.9	1,146	30.4	1,316	33.3
Oklahoma	548	21.7	617	23.0	729	25.9
Texas	2,859	25.8	3,415	28.3	4,030	31.2
WEST	11,663	34.0	13,578	36.3	15,088	38.0
Mountain	2,370	28.8	2,985	31.4	3,372	32.9
Arizona	471	26.7	737	33.7	864	36.8
Colorado	785	36.1	890	35.7	991	37.2
Idaho	14[illegible]	20.2	191	23.6	211	24.1
Montana	1[illegible]3	23.6	198	26.8	227	29.3
Nevada	1[illegible]2	27.3	170	29.2	196	29.8
New Mexico	242	24.0	303	26.9	344	28.7
Utah	364	34.3	411	34.3	446	34.0
Wyoming	69	20.9	85	22.8	93	22.1
Pacific	9,293	35.6	10,593	38.0	11,716	39.8
Alaska	46	16.8	73	21.5	93	24.0
California	7,344	37.4	8,254	39.5	9,108	41.3
Hawaii	241	33.3	284	35.1	321	38.0
Oregon	684	32.6	854	37.4	944	38.6
Washington	978	29.2	1,128	32.3	1,250	33.4

1/ Surgical specialties includes general surgery, neurological surgery, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, colon and rectal surgery, thoracic surgery, and urology.

2/ Excludes counts of physicians and populations in U.S. Possessions.

SOURCE: American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues.

Table J-6
NUMBER AND RATIO TO POPULATION OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) IN OBSTETRICS AND GYNECOLOGY, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1978

Geographic area	1970		1975		1978	
	Active non-Federal physicians in obstetrics and gynecology	Active non-Federal physicians in obstetrics and gynecology per 100,000 civilian population	Active non-Federal physicians in obstetrics and gynecology	Active non-Federal physicians in obstetrics and gynecology per 100,000 civilian population	Active non-Federal physicians in obstetrics and gynecology	Active non-Federal physicians in obstetrics and gynecology per 100,000 civilian population
UNITED STATES 1/	17,615	8.7	20,307	9.6	22,897	10.6
NORTHEAST	5,436	11.1	5,887	11.9	6,114	12.5
New England	1,090	9.2	1,246	10.3	1,377	11.3
Connecticut	340	11.2	373	12.1	408	13.2
Maine	46	4.7	55	5.2	77	7.1
Massachusetts	549	9.7	623	10.7	668	11.6
New Hampshire	41	5.6	60	7.4	71	8.2
Rhode Island	81	8.8	95	10.2	105	11.3
Vermont	33	7.4	40	8.5	48	9.9
Middle Atlantic	4,346	11.7	4,641	11.5	4,737	12.9
New Jersey	720	10.1	820	11.2	890	12.2
New York	2,567	14.1	2,662	14.7	2,617	14.8
Pennsylvania	1,059	9.0	1,159	9.8	1,230	10.5
NORTH CENTRAL	4,034	7.1	4,627	8.1	5,121	8.8
East North Central	3,067	7.6	3,480	8.5	3,881	9.4
Illinois	902	8.1	1,052	9.4	1,189	10.6
Indiana	236	4.5	269	5.1	324	6.0
Michigan	799	9.0	903	9.9	965	10.5
Ohio	850	8.0	937	8.7	1,051	9.8
Wisconsin	280	6.3	319	7.0	352	7.5
West North Central	967	6.0	1,147	6.9	1,240	7.3
Iowa	122	4.3	143	5.0	150	5.2
Kansas	117	5.3	137	6.1	169	7.3
Minnesota	242	6.4	292	7.5	307	7.6
Missouri	357	7.7	435	9.2	451	9.3
Nebraska	82	5.6	89	5.8	101	6.5
North Dakota	25	4.1	28	4.5	32	5.0
South Dakota	22	3.3	23	3.4	30	4.4
SOUTH	4,888	7.9	6,003	8.9	7,166	10.3
South Atlantic	2,722	9.0	3,405	10.3	4,033	11.8
Delaware	50	9.2	63	11.0	77	13.3
District of Columbia	195	26.2	204	29.0	225	33.9
Florida	581	8.6	818	10.0	964	11.3
Georgia	383	8.5	466	9.5	562	11.2
Maryland	556	14.4	640	15.7	720	17.5
North Carolina	371	7.4	472	8.8	568	10.4
South Carolina	155	6.1	195	7.1	246	8.7
Virginia	340	7.6	434	9.0	528	10.5
West Virginia	91	5.2	113	6.3	143	7.7
East South Central	777	6.1	956	7.1	1,141	8.2
Alabama	207	6.1	256	7.1	313	8.4
Kentucky	174	5.5	228	6.8	268	7.8
Mississippi	122	5.5	146	6.3	168	7.1
Tennessee	274	7.0	326	7.9	392	9.1
West South Central	1,389	7.3	1,642	8.0	1,992	9.1
Arkansas	81	4.2	102	4.9	129	6.0
Louisiana	330	9.1	347	9.2	414	10.5
Oklahoma	159	6.3	180	6.7	208	7.4
Texas	319	7.4	1,013	8.4	1,241	9.6
WEST	3,257	9.5	3,790	10.1	4,496	11.3
Mountain	641	7.8	814	8.6	984	9.6
Arizona	142	8.0	224	10.3	272	11.6
Colorado	211	9.7	254	10.2	297	11.2
Idaho	34	4.8	40	5.0	53	6.1
Montana	38	5.5	39	5.3	50	6.5
Nevada	38	7.9	43	7.4	52	7.9
New Mexico	65	6.5	85	7.5	105	8.8
Utah	99	9.3	112	9.3	129	9.8
Wyoming	14	4.2	17	4.6	26	6.2
Pacific	2,616	10.0	2,976	10.7	3,512	11.9
Alaska	12	4.4	18	5.3	26	6.7
California	2,112	10.7	2,379	11.4	2,794	12.7
Hawaii	73	10.1	100	12.3	124	14.7
Oregon	164	7.8	195	8.5	236	9.6
Washington	255	7.6	284	8.1	332	8.9

1/ Excludes counts of physicians and populations in U.S. Possessions.

SOURCE: American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues.

Table J-7
NUMBER AND RATIO TO POPULATION OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) IN PSYCHIATRY, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1978 1/

Geographic area	1970		1975		1978	
	Active non-Federal physicians in psychiatry	Active non-Federal physicians in psychiatry per 100,000 civilian population	Active non-Federal physicians in psychiatry	Active non-Federal physicians in psychiatry per 100,000 civilian population	Active non-Federal physicians in psychiatry	Active non-Federal physicians in psychiatry per 100,000 civilian population
UNITED STATES 2/	20,845	10.4	23,828	11.3	26,549	12.3
NORTHEAST	8,342	17.3	9,165	18.6	9,522	19.4
New England	1,941	16.5	2,268	18.7	2,573	21.1
Connecticut	547	18.1	646	20.9	746	24.1
Maine	39	4.0	76	7.3	99	9.2
Massachusetts	1,142	20.1	1,288	22.2	1,442	25.0
New Hampshire	61	8.3	87	10.8	104	12.0
Rhode Island	95	10.3	99	10.7	109	11.7
Vermont	57	12.8	72	15.3	73	15.0
Middle Atlantic	6,397	17.2	6,897	18.5	6,949	18.9
New Jersey	605	8.5	807	11.0	837	11.5
New York	4,512	24.7	4,700	26.0	4,591	25.9
Pennsylvania	1,280	10.9	1,390	11.7	1,521	12.9
NORTH CENTRAL	4,254	7.5	4,582	8.0	5	8.8
East North Central	3,007	7.5	3,295	8.1	3,693	9.0
Illinois	946	8.5	1,041	9.3	1,177	10.5
Indiana	221	4.3	245	4.6	288	5.4
Michigan	797	9.0	880	9.7	927	10.1
Ohio	733	6.9	788	7.4	911	8.5
Wisconsin	310	7.0	341	7.4	390	8.3
West North Central	1,247	7.7	1,287	7.8	1,399	8.3
Iowa	151	5.3	171	6.0	166	5.7
Kansas	263	11.9	265	11.8	298	12.8
Minnesota	231	6.1	254	6.5	306	7.6
Missouri	470	10.1	456	9.6	463	9.6
Nebraska	90	6.1	102	6.7	114	7.3
North Dakota	26	4.3	26	4.2	33	5.1
South Dakota	16	2.4	13	1.9	19	2.8
SOUTH	4,214	6.8	5,218	7.8	6,215	8.9
South Atlantic	2,608	8.7	3,288	9.9	3,891	11.4
Delaware	45	8.3	60	10.5	66	11.4
District of Columbia	317	42.6	373	53.1	413	62.3
Florida	459	6.8	685	8.4	816	9.5
Georgia	283	6.3	348	7.1	399	8.0
Maryland	693	17.9	766	18.8	880	21.4
North Carolina	341	6.8	415	7.8	498	9.1
South Carolina	107	4.2	162	5.9	215	7.6
Virginia	311	6.9	409	8.5	505	10.1
West Virginia	52	3.0	70	3.9	99	5.3
East South Central	447	3.5	592	4.4	711	5.1
Alabama	75	2.2	92	2.6	126	3.4
Kentucky	138	4.3	194	5.8	214	6.2
Mississippi	54	2.5	70	3.0	89	3.7
Tennessee	180	4.6	236	5.7	282	6.5
West South Central	1,159	6.1	1,338	6.5	1,613	7.4
Arkansas	89	4.6	96	4.6	109	5.1
Louisiana	239	6.6	259	6.9	300	7.6
Oklahoma	137	5.4	145	5.4	168	6.0
Texas	694	6.3	838	6.9	1,036	8.0
WEST	4,077	11.9	4,863	13.0	5,720	14.6
Mountain	591	7.2	785	8.3	1,018	9.9
Arizona	111	6.3	185	8.5	233	9.9
Colorado	296	13.5	349	14.0	472	17.7
Idaho	20	2.8	26	3.2	25	2.9
Montana	18	2.6	26	3.5	34	4.4
Nevada	20	4.1	32	5.5	36	5.5
New Mexico	58	5.8	72	6.4	105	8.8
Utah	63	5.9	85	7.1	101	7.7
Wyoming	7	2.1	10	2.7	12	2.9
Pacific	3,486	13.4	4,078	14.6	4,702	16.0
Alaska	14	5.1	19	5.6	24	6.2
California	2,942	15.0	3,435	16.4	3,922	17.8
Hawaii	77	10.7	101	12.5	131	15.5
Oregon	140	6.7	177	7.8	225	9.2
Washington	313	9.3	346	9.9	400	10.7

1/ Includes child psychiatry.

2/ Excludes counts of physicians and populations in U.S. Possessions.

SOURCE: American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues.

Table J-8
NUMBER AND RATIO TO POPULATION OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) IN ANESTHESIOLOGY, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1978

Geographic area	1970		1975		1978	
	Active non-Federal physicians in anesthesiology	Active non-Federal physicians in anesthesiology per 100,000 civilian population	Active non-Federal physicians in anesthesiology	Active non-Federal physicians in anesthesiology per 100,000 civilian population	Active non-Federal physicians in anesthesiology	Active non-Federa physicians in anesthesiology per 100,00 civilian population
UNITED STATES 1/	10,161	5.0	12,054	5.7	13,687	6.3
NORTHEAST	3,281	6.7	3,587	7.3	3,749	7.7
New England	851	7.2	974	8.0	1,047	8.6
Connecticut	209	6.9	231	7.5	239	7.7
Maine	48	4.9	57	5.4	66	6.1
Massachusetts	469	8.3	544	9.4	589	10.2
New Hampshire	41	5.5	49	6.1	57	6.6
Rhode Island	55	6.0	61	6.6	60	6.5
Vermont	29	6.5	32	6.8	36	7.4
Middle Atlantic	2,430	6.5	2,613	7.0	2,702	7.3
New Jersey	361	5.1	467	6.4	513	7.0
New York	1,548	8.5	1,520	8.4	1,486	8.4
Pennsylvania	521	4.4	626	5.3	703	6.0
NORTH CENTRAL	2,342	4.1	2,791	4.9	3,130	5.4
East North Central	1,800	4.5	2,148	5.3	2,383	5.8
Illinois	480	4.3	641	5.7	695	6.2
Indiana	241	4.6	284	5.4	312	5.8
Michigan	296	3.3	332	3.6	399	4.4
Ohio	591	5.6	645	6.0	701	6.5
Wisconsin	192	4.3	246	5.4	276	5.9
West North Central	542	3.3	643	3.9	747	4.4
Iowa	102	3.6	128	4.5	135	4.6
Kansas	86	3.9	94	4.2	117	5.0
Minnesota	168	4.4	192	4.9	219	5.4
Missouri	131	2.8	162	3.4	182	3.8
Nebraska	37	2.5	45	2.9	61	3.9
North Dakota	11	1.8	14	2.2	22	3.4
South Dakota	7	1.1	8	1.2	11	1.6
SOUTH	2,228	3.6	2,895	4.3	3,603	5.2
South Atlantic	1,181	3.9	1,566	4.7	1,936	5.7
Delaware	20	3.7	28	4.9	23	4.0
District of Columbia	94	12.6	72	10.2	68	10.3
Florida	303	4.5	462	5.6	620	7.2
Georgia	177	3.9	207	4.2	275	5.5
Maryland	244	6.3	292	7.2	339	8.3
North Carolina	73	1.5	139	2.6	167	3.1
South Carolina	60	2.4	76	2.8	96	3.4
Virginia	165	3.7	229	4.7	280	5.6
West Virginia	45	2.6	61	3.4	68	3.7
East South Central	348	2.7	468	3.5	546	3.9
Alabama	72	2.1	97	2.7	113	3.0
Kentucky	107	3.4	126	3.8	161	4.7
Mississippi	37	1.7	59	2.5	69	2.9
Tennessee	132	3.4	186	4.5	203	4.7
West South Central	699	3.7	861	4.2	1,121	5.1
Arkansas	46	2.4	50	2.4	69	3.2
Louisiana	97	2.7	108	2.9	145	3.7
Oklahoma	87	3.4	109	4.1	124	4.4
Texas	469	4.2	594	4.9	783	6.1
WEST	2,310	6.7	2,781	7.4	3,205	8.1
Mountain	413	5.0	538	5.7	668	6.5
Arizona	90	5.1	129	5.9	178	7.6
Colorado	129	5.9	167	6.7	188	7.1
Idaho	19	2.7	26	3.2	25	2.9
Montana	24	3.5	33	4.5	40	5.1
Nevada	30	6.2	43	7.4	53	8.1
New Mexico	31	3.1	35	3.1	46	3.8
Utah	77	7.3	94	7.8	121	9.2
Wyoming	13	3.9	11	3.0	17	4.0
Pacific	1,897	7.3	2,243	8.1	2,537	8.8
Alaska	7	2.6	9	2.7	10	2.6
California	1,515	7.7	1,765	8.4	2,008	9.1
Hawaii	26	3.6	38	4.7	42	5.0
Oregon	120	5.7	163	7.1	169	6.9
Washington	229	6.8	268	7.6	308	8.2

1/ Excludes counts of physicians and populations in U.S. Possessions.

SOURCE: American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues.

Table J-9
NUMBER AND RATIO TO POPULATION OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) IN RADIOLOGY, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1978 1/

Geographic area	1970		1975		1978	
	Active non-Federal physicians in radiology	Active non-Federal physicians in radiology per 100,000 civilian population	Active non-Federal physicians in radiology	Active non-Federal physicians in radiology per 100,000 civilian population	Active non-Federal physicians in radiology	Active non-Federal physicians in radiology per 100,000 civilian population
UNITED STATES 2/	11,988	5.9	14,614	6.9	17,243	8.0
NORTHEAST	3,497	7.4	4,132	8.4	4,575	9.3
New England	849	7.2	1,136	9.4	1,275	10.4
Connecticut	225	7.4	294	9.5	322	10.4
Maine	47	4.8	62	5.9	79	7.3
Massachusetts	456	8.0	613	10.6	686	11.9
New Hampshire	36	4.9	56	6.9	62	7.2
Rhode Island	49	5.3	70	7.6	86	9.3
Vermont	36	8.1	41	8.7	40	8.2
Middle Atlantic	2,648	7.1	2,996	8.1	3,300	9.0
New Jersey	323	4.5	432	5.9	525	7.2
New York	1,464	8.0	1,617	9.0	1,730	9.8
Pennsylvania	861	7.3	947	8.0	1,045	8.9
NORTH CENTRAL	2,982	5.3	3,528	6.1	4,129	7.1
East North Central	2,119	5.3	2,579	6.3	2,963	7.2
Illinois	609	5.5	768	6.9	919	8.2
Indiana	207	4.0	274	5.2	324	6.0
Michigan	474	5.3	598	6.6	637	6.9
Ohio	569	5.3	631	5.9	722	6.7
Wisconsin	260	5.9	308	6.7	361	7.7
West North Central	863	5.3	949	5.7	1,166	6.9
Iowa	121	4.3	135	4.7	164	5.6
Kansas	113	5.1	130	5.8	173	7.5
Minnesota	248	6.5	262	5.7	323	8.0
Missouri	261	5.6	268	5.7	328	6.8
Nebraska	72	4.9	83	5.4	102	6.6
North Dakota	25	4.1	42	6.7	43	6.7
South Dakota	23	3.5	29	4.3	33	4.8
SOUTH	3,092	5.0	3,852	5.7	4,883	7.0
South Atlantic	1,566	5.2	2,027	6.1	2,549	7.5
Delaware	24	4.4	38	6.6	43	7.4
District of Columbia	86	11.5	106	15.1	122	18.4
Florida	381	5.6	560	6.8	702	8.2
Georgia	221	4.9	275	5.6	339	6.8
Maryland	224	5.8	265	6.5	351	8.6
North Carolina	236	4.7	293	5.5	357	6.5
South Carolina	83	3.3	110	4.0	148	5.2
Virginia	231	5.2	283	5.9	369	7.3
West Virginia	80	4.6	97	5.4	117	6.3
East South Central	571	4.5	698	5.2	894	6.5
Alabama	135	4.0	184	5.1	235	6.3
Kentucky	145	4.6	168	5.0	212	6.1
Mississippi	70	3.2	95	4.1	120	5.0
Tennessee	221	5.7	251	6.0	327	7.6
West South Central	955	5.0	1,127	5.5	1,440	6.6
Arkansas	82	4.3	115	5.5	120	5.6
Louisiana	183	5.1	186	4.9	237	6.0
Oklahoma	112	4.4	136	5.1	178	6.3
Texas	578	5.2	690	5.7	905	7.0
WEST	2,417	7.0	3,102	8.3	3,656	9.2
Mountain	478	5.8	638	6.7	779	7.6
Arizona	88	5.0	158	7.2	206	8.8
Colorado	185	8.5	190	7.6	221	8.3
Idaho	27	3.8	42	5.2	48	5.5
Montana	33	4.8	49	6.6	53	6.8
Nevada	25	5.2	35	6.0	40	6.1
New Mexico	49	4.9	64	5.7	83	6.9
Utah	60	5.6	79	6.6	103	7.9
Wyoming	11	3.3	21	5.6	25	5.9
Pacific	1,939	7.4	2,464	8.8	2,877	9.8
Alaska	5	1.8	10	2.9	16	4.1
California	1,604	8.2	2,022	9.7	2,337	10.6
Hawaii	37	5.1	44	5.4	52	6.2
Oregon	105	5.0	151	6.6	183	7.5
Washington	188	5.6	237	6.8	289	7.7

1/ Includes diagnostic radiology and therapeutic radiology.

2/ Excludes counts of physicians and populations in U.S. Possessions.

SOURCE: American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues.

Table J-10
NUMBER AND RATIO TO POPULATION OF ACTIVE NON-FEDERAL PHYSICIANS (M.D.'S) IN PATHOLOGY, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1970, 1975, AND 1978 1/

Geographic area	1970		1975		1978	
	Active non-Federal physicians in pathology	Active non-Federal physicians in pathology per 100,000 civilian population	Active non-Federal physicians in pathology	Active non-Federal physicians in pathology per 100,000 civilian population	Active non-Federal physicians in pathology	Active non-Federal physicians in pathology per 100,000 civilian population
UNITED STATES 2/	9,203	4.6	10,610	5.0	11,833	5.5
NORTHEAST	2,870	5.9	3,175	6.4	3,229	6.6
New England	703	6.0	820	6.8	860	7.0
Connecticut	190	6.3	205	6.6	215	6.9
Maine	29	2.9	40	3.8	49	4.5
Massachusetts	358	6.3	432	7.4	454	7.9
New Hampshire	36	4.9	50	6.2	51	5.9
Rhode Island	51	5.6	62	6.7	57	6.1
Vermont	39	8.7	31	6.6	34	7.0
Middle Atlantic	2,169	5.8	2,355	6.3	2,369	6.4
New Jersey	332	4.7	386	5.3	403	5.5
New York	1,251	6.9	1,295	7.2	1,275	7.2
Pennsylvania	584	5.0	674	5.7	691	5.9
NORTH CENTRAL	2,475	4.4	2,713	4.7	3,071	5.3
East North Central	1,752	4.4	1,921	4.7	2,146	5.2
Illinois	569	5.1	590	5.3	673	6.0
Indiana	174	3.4	199	3.8	238	4.4
Michigan	352	4.0	412	4.5	426	4.6
Ohio	469	4.4	503	4.7	568	5.3
Wisconsin	188	4.2	217	4.7	241	5.1
West North Central	723	4.5	792	4.8	925	5.5
Iowa	79	2.8	95	3.3	115	4.0
Kansas	86	3.9	99	4.4	111	4.8
Minnesota	223	5.9	235	6.0	273	6.8
Missouri	222	4.8	246	5.2	300	6.2
Nebraska	69	4.7	70	4.6	73	4.7
North Dakota	19	3.1	24	3.8	27	4.2
South Dakota	25	3.8	23	3.4	26	3.8
SOUTH	2,264	3.7	2,746	4.1	3,354	4.8
South Atlantic	1,237	4.1	1,523	4.6	1,807	5.3
Delaware	15	2.8	22	3.8	25	4.3
District of Columbia	107	14.4	89	12.7	111	16.7
Florida	278	4.1	377	4.6	470	5.5
Georgia	119	2.6	170	3.5	198	3.9
Maryland	246	6.4	273	6.7	289	7.0
North Carolina	191	3.8	219	4.1	275	5.0
South Carolina	62	2.5	85	3.1	109	3.8
Virginia	167	3.7	204	4.2	235	4.7
West Virginia	52	3.0	84	4.7	95	5.1
East South Central	378	3.0	449	3.3	589	4.3
Alabama	94	2.8	100	2.8	135	3.6
Kentucky	77	2.4	102	3.0	124	3.6
Mississippi	49	2.2	66	2.8	79	3.3
Tennessee	158	4.0	181	4.4	251	5.8
West South Central	649	3.4	774	3.8	958	4.4
Arkansas	48	2.5	54	2.6	64	3.0
Louisiana	138	3.8	154	4.1	187	4.7
Oklahoma	68	2.7	78	2.9	95	3.4
Texas	395	3.6	488	4.0	612	4.7
WEST	1,594	4.6	1,976	5.3	2,179	5.5
Mountain	352	4.3	467	4.9	512	5.0
Arizona	66	3.7	96	4.4	115	4.9
Colorado	140	6.4	170	6.8	178	6.7
Idaho	15	2.1	17	2.1	21	2.4
Montana	20	2.9	24	3.2	32	4.1
Nevada	17	3.5	29	5.0	29	4.4
New Mexico	44	4.4	55	4.9	56	4.7
Utah	41	3.9	62	5.2	68	5.2
Wyoming	9	2.7	14	3.8	13	3.1
Pacific	1,242	4.8	1,509	5.4	1,667	5.7
Alaska	4	1.5	8	2.4	9	2.3
California	956	4.9	1,170	5.6	1,287	5.8
Hawaii	38	5.3	45	5.6	60	7.1
Oregon	91	4.3	120	5.3	120	4.9
Washington	153	4.6	166	4.7	191	5.1

1/ Includes forensic pathology.

2/ Excludes counts of physicians and populations in U.S. Possessions.

SOURCE: American Medical Association, Center for Health Services Research and Development. Physician Distribution and Medical Licensure in the U.S., 1978. Also prior annual issues.

K. Appendix II.
Designated Shortage Areas

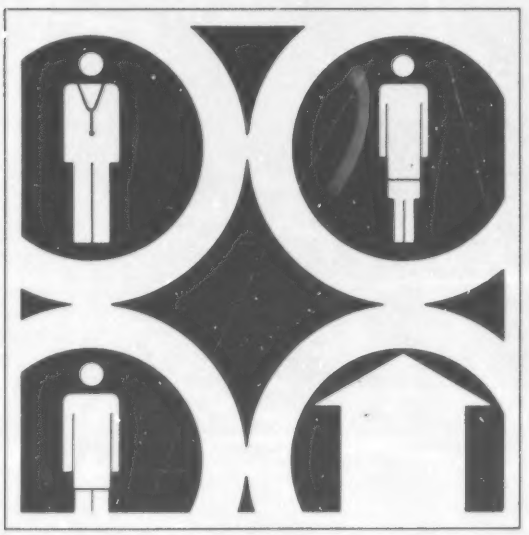

Table K-1
NUMBER OF HEALTH OCCUPATION SHORTAGE AREAS DESIGNATED IN METROPOLITAN AREAS AND NON-METROPOLITAN COUNTIES, AND ADDITIONAL PRACTITIONERS NEEDED, FOR SELECTED HEALTH OCCUPATIONS: DECEMBER 31, 1980

Health occupation	Number of shortage-area designations			Percent of shortage area designations in metropolitan areas	Population of designated shortage areas (thousands)			Percent of shortage-area population in metropolitan areas	Additional practitioners needed to remove shortage-area designation			Percent of the additional practitioners needed in metropolitan areas
	Total	Metropolitan	Non-metropolitan		Total	Metropolitan	Non-metropolitan		Total	Metropolitan	Non-metropolitan	
Primary-care physicians	1,921	571	1,350	29.7	41,771	22,752	19,019	54.5	5,835[1/]	3,248	2,587	55.7
Dentists	916	181	735	19.7	20,953	9,241	11,712	44.1	2,442[2/]	983	1,459	40.2
Vision-care practitioners	272	56	216	20.6	13,695	9,487	4,208	69.3	405[3/]	173	232	42.7
Pharmacists	132	15	117	11.4	1,135	65	1,070	5.7	174[4/]	8	166	4.6
Podiatrists	1,404	349	1,055	24.8	87,586	49,747	37,839	56.8	1,204[5/]	273	931	22.7
Food animal veterinarians	622	36	586	5.8	14,563	2,864	11,699	19.7	1,595[6/]	112	1,483	7.0
Psychiatrists	218	58	160	26.6	*	*	*	*	*	*	*	*

* Data not available.

1/ The number of additional primary-care physicians required to meet a population-to-primary-care-physician ratio of 3,500:1 (3,000:1 where high needs are indicated) in all designated primary-care shortage areas, resulting in their removal from the list of designated primary-care shortage areas.

2/ The number of additional dentists required to meet a population-to-dentist ratio of 5,000:1 (4,000:1 where high needs are indicated) in all designated dentist shortage areas, resulting in their removal from the list of designated shortage areas.

3/ The number of additional vision-care practitioners needed to eliminate the difference between visits required and visits supplied, if each practitioner provides 3,000 visits per year.

4/ The difference between the number of pharmacists required under the shortage criteria and the current supply of pharmacists in the area.

5/ The number of additional foot-care practitioners needed to meet a population-to-practitioner ratio of 28,000:1.

6/ The number of additional food animal veterinarians needed to meet a veterinary livestock-units-to-veterinarian ratio of 10,000:1.

SOURCE: Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

Table K-2
NUMBER OF DESIGNATED PRIMARY-CARE PHYSICIAN SHORTAGE AREAS, AND ADDITIONAL PRIMARY-CARE PHYSICIANS NEEDED TO REMOVE SHORTAGE-AREA DESIGNATION AND TO ACHIEVE TARGET RATIO, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1980

Geographic area	Total number of designated primary-care physician shortage areas	Total population of designated shortage areas (thousands)	Estimated unserved population of designated shortage areas (thousands) 1/	Additional primary-care physicians needed	
				To remove shortage-area designation 2/	To achieve target ratio 3/
TOTAL	1,921	41,884	15,679	5,835	12,489
NORTHEAST	274	7,892	2,885	1,041	2,298
New England	90	1,865	732	268	579
Connecticut	18	454	207	69	147
Maine	15	111	49	24	36
Massachusetts	35	1,082	370	129	322
New Hampshire	4	36	23	8	14
Rhode Island	9	120	61	26	40
Vermont	9	62	22	12	20
Middle Atlantic	184	6,027	2,153	773	1,719
New Jersey	21	622	147	57	157
New York	91	4,094	1,528	527	1,168
Pennsylvania	72	1,311	478	189	394
NORTH CENTRAL	471	10,565	3,792	1,432	3,149
East North Central	230	7,367	2,733	976	2,214
Illinois	58	2,247	882	318	690
Indiana	30	887	316	113	266
Michigan	52	1,627	707	259	522
Ohio	46	1,854	578	194	522
Wisconsin	44	752	250	92	214
West North Central	241	3,198	1,059	456	935
Iowa	43	600	175	77	177
Kansas	21	204	49	25	56
Minnesota	26	299	100	46	88
Missouri	45	1,346	416	156	371
Nebraska	32	308	80	42	86
North Dakota	28	177	93	44	63
South Dakota	46	264	146	66	94
SOUTH	789	17,043	5,850	2,235	4,905
South Atlantic	352	8,172	2,771	1,068	2,340
Delaware	4	56	18	8	17
District of Columbia	1	219	208	70	106
Florida	41	1,867	517	176	497
Georgia	74	1,180	434	171	351
Maryland	27	528	196	89	149
North Carolina	64	1,705	398	162	432
South Carolina	38	885	238	94	235
Virginia	50	863	352	139	268
West Virginia	53	869	410	159	285
East South Central	233	4,618	1,551	580	1,309
Alabama	64	1,445	522	178	422
Kentucky	67	1,031	359	149	305
Mississippi	58	1,288	412	157	358
Tennessee	44	854	258	96	224
West South Central	204	4,253	1,528	587	1,256
Arkansas	41	552	209	84	168
Louisiana	39	818	423	151	277
Oklahoma	34	837	240	92	237
Texas	90	2,046	656	260	574
WEST	352	5,482	2,745	980	1,844
Mountain	170	1,543	834	298	504
Arizona	22	415	226	63	133
Colorado	36	266	106	54	84
Idaho	17	105	64	27	43
Montana	19	106	53	26	36
Nevada	27	171	191	47	65
New Mexico	24	249	101	41	78
Utah	11	114	55	20	36
Wyoming	14	117	38	20	32
Pacific	182	3,939	1,911	682	1,340
Alaska	17	111	62	27	41
California	98	2,737	1,127	385	879
Hawaii	2	24	24	8	12
Oregon	33	323	157	66	109
Washington	32	744	561	196	299
Other Areas	35	899	408	147	293
American Samoa	7	31	14	6	9
Guam	1	6	5	2	3
N. Mariana Islands	1	20	1	-	5
Puerto Rico	24	710	310	110	228
Trust Territory	5	92	49	18	32
Virgin Islands	2	40	29	11	16

1/ The estimated unserved population is computed by multiplying the number of practitioners in the area by the population-to-practitioner ratio required for designation, and subtracting this figure from the area population.

2/ The number of additional primary-care physicians required to meet a population-to-primary-care physician ratio of 3,500:1 (3,000:1 where high needs are indicated) in all designated primary-care shortage areas, resulting in their removal from the list of designated shortage areas.

3/ The number of additional primary-care physicians needed to meet a population-to-primary-care physician ratio of 2,000:1.

SOURCE: Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.

Table K-3
NUMBER OF DESIGNATED DENTIST SHORTAGE AREAS, AND ADDITIONAL DENTISTS NEEDED TO REMOVE SHORTAGE-AREA DESIGNATION AND TO ACHIEVE TARGET RATIO, BY REGION, DIVISION, AND STATE: DECEMBER 31, 1989

Geographic area	Total number of designated dentist shortage areas	Total population of designated shortage areas (thousands)	Estimated unserved population of designated shortage areas (thousands) 1/	Additional dentists needed	
				To remove shortage-area designation 2/	To achieve target ratio 3/
TOTAL	916	28,953	8,339	2,442	3,067
NORTHEAST	79	2,973	864	240	349
New England	20	446	172	50	63
Connecticut	8	124	50	13	18
Maine	3	81	28	8	11
Massachusetts	5	212	75	21	27
New Hampshire	—	—	—	—	—
Rhode Island	—	—	—	—	—
Vermont	4	29	19	6	7
Middle Atlantic	59	2,527	692	190	286
New Jersey	2	59	15	5	6
New York	19	1,746	289	77	151
Pennsylvania	38	722	388	108	129
NORTH CENTRAL	196	4,152	1,716	516	636
East North Central	78	2,905	1,177	329	445
Illinois	21	664	270	82	99
Indiana	8	306	127	36	43
Michigan	15	1,062	452	118	175
Ohio	24	730	252	71	103
Wisconsin	10	143	76	22	25
West North Central	118	1,247	539	187	191
Iowa	19	247	76	29	35
Kansas	19	123	56	24	19
Minnesota	1	16	12	3	3
Missouri	35	613	252	78	90
Nebraska	2	29	7	2	3
North Dakota	14	91	44	18	14
South Dakota	28	128	92	33	27
SOUTH	510	11,212	4,356	1,278	1,670
South Atlantic	237	5,659	2,060	596	864
Delaware	—	—	—	—	—
District of Columbia	—	—	—	—	—
Florida	36	1,053	401	115	145
Georgia	63	1,057	403	121	223
Maryland	5	200	93	25	32
North Carolina	44	1,292	389	115	161
South Carolina	28	876	258	73	103
Virginia	29	491	237	70	78
West Virginia	32	670	279	77	102
East South Central	152	2,924	1,236	370	439
Alabama	39	978	467	127	160
Kentucky	46	787	329	102	116
Mississippi	51	949	354	114	129
Tennessee	16	210	86	27	34
West South Central	121	2,649	1,060	312	387
Arkansas	25	314	88	34	35
Louisiana	26	530	225	68	77
Oklahoma	24	399	112	41	46
Texas	46	1,406	635	169	229
WEST	105	1,718	886	266	305
Mountain	42	718	349	105	128
Arizona	13	342	131	34	35
Colorado	5	53	36	10	12
Idaho	2	21	11	3	4
Montana	4	33	7	5	3
Nevada	12	74	55	15	18
New Mexico	14	131	85	26	27
Utah	3	4	4	3	1
Wyoming	9	60	20	9	8
Pacific	63	1,000	537	161	177
Alaska	15	70	55	21	18
California	14	713	385	93	127
Hawaii	1	4	4	1	1
Oregon	8	154	64	19	22
Washington	5	59	29	27	9
Other Areas	26	898	516	142	107
American Samoa	1	31	9	3	2
Puerto Rico	22	794	502	135	102
Trust Territory	2	57	5	3	3
Virgin Islands	1	16	—	1	—

1/ The estimated unserved population is computed by multiplying the number of practitioners in the area by the population-to-practitioner ratio required for designation, and subtracting this figure from the area population.

2/ The number of additional dentists required to meet a population-to-dentist ratio of 5,000:1 (4,000:1 where high needs are indicated) in all designated dentist shortage areas, resulting in their removal from the list of designated shortage areas.

3/ The number of additional dentists needed to meet a population-to-dentist ratio of 3,500:1.

SOURCE: Health Resources Administration, Bureau of Health Professions, Division of Health Professions Analysis.